SERVICE MANUAL

(without price)

ELECTRONIC CASH REGISTER

CE-7000 (EX-475B*,C*,D*)

FEB. 2000

Printer Model : M-U420-071

INDEX

CASIO®

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1. SPECIFICATIONS

1-1. Electrical specifications

		120V	220V	230V	240V
• Power consumption	In operation Max.	0.7 A	0.4A	0.4A	0.4A
	Min.	0.3 A	0.2A	0.2A	0.2A
	Power OFF	0.3 A	0.2A	0.2A	0.2A
• Memory protection	Back-up battery	VL3032/1F2			
	Back-up period	90 days (25 °C)			
	Battery life	Replace the battery every 5 years.			
	Recharge time	48 hours			
• Clock & Calendar	Accuracy	Within ± 30 sec. per month (25 °C)			
	Auto calendar	Effective until 2099 A.D.			

1-2. Environmental specifications

• Operating temperature	0 °C ~ 40 °C
• Operating humidity	10 % ~ 90 %
• Storage temperature	-25 °C ~ 65 °C
• Storage humidity	10 % ~ 95 %
• Vibration strength	1.5 G (The machine must be in the carton box)

1-3. Main components

• CPU	Name	uPD784215GC084-8EU
	Number of control bit	8bit
		Internal RAM 4 KBytes
• RAM1 and 2	Name	HY628100ALLG-70
	Capacity	128 K bytes
• Option RAM3 and 4	Name	HM628512ALP-7
	Capacity	512 Kbytes
• Flash ROM1	Name	LH28F016SCT-L85
	Capacity	2 M bytes
• Flash ROM2	Name	LH28F004SCT-L85
	Capacity	512 K bytes
• Display driver	Name	uPD78015FGC-526-AB8
• Printer	Name	M-U420-071
	Print method	Impact dot matrix printer
	Paper cut	Auto-paper cut
• Roll paper	Type	Fine-quality paper
	Size	Width 44.5 ± 0.5 mm
	Roll diam	83 mm or less
	Thickness	75 ± 15 μm

1-4. Drawer List

DRAWER NAME	Specification	NOTE
• DL-2766 (M type)	D-9BC-B84M-9*	EUROPE, Saudi-Arabia, Other countries
• DL-2767 (M type)	D-9BC-B84SM-9*	UK, Germany
• DL-2417 (M type)	D-9BC-B55S-9*	USA
• DL-2517 (M type)	D-9BC-B64S-9*	Canada
• DL-3616 (L type)	D-11BH-B65SS-9*	USA, Canada
• DL-3617 (L type)	D-11BH-B65-9*	Saudi-Arabia

1-5. Option List

DEVICE NAME	MODEL	NOTE
• RAM CHIP	RAM-610-10LL	Capacity 4Mbits (512 Kbytes)
• Momry Cassette	RAC-9	16Mbits (2 Mbytes) With write protection switch
• Wet cover	WT-77	
• Modem	Sports star 56.4Kbps	Recommend model : U.S.Robotics Com 1 port only
• P/C cable	PRL-CB-2	Com 1 port only
• Handy scanner	HHS-15	Com 2 port only
• Fixed scanner	HS1250	Com 2 port only (PSC model)
• Laser scanner	Quic Scan 6000	Com 2 port only (PSC model)
• Slip printer	SP-1300	Connect to Com 2 or 3. It is possible to drive only one printer.
• Kitchen printer	UP-350	Connect to Com 1,2 or 3. It is possible to drive until 2 printers.
• Kitchen printer	UP-250	Connect to Com 1,2 or 3. It is possible to drive until 2 printers.
• Scale	Model 6710	Com 3 only (NCI model)

DEVICE NAME	MODEL	NOTE
• Slip printer cable	PRT-CB-8C	Connect Com 2 or 3. (Cable lngth 1.5m)
• External printer cable	PRT-CB-8A	Connect to Com 1,2 or 3. (Cable length 3 m)
• External printer cable	PRT-CB-8B	Connect to Com 1,2 or 3. (Cable length 5 m)
• Power unit for External printer	PS-170	Epson model
• Power cord for power unit	AC-170	Epson model
• Power-board		JDC model

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacture's instructions.

VORSICHT !
Explosionsgefahr bei unsachgemäßem Austausch der Batterie.
Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ.
Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

ADVARSEL !
Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandØren.

2. INITIALIZE (MAC) OPERATION (CE-7000)

1. Plug the power cord into an AC outlet.
2. Set the mode switch to "OFF" position.
3. While pressing the Journal feed Button, turn the mode switch to "PGM" position.
4. Release the Journal feed button.
5. Input the MAC CODE 1. (11 digits)
6. Press "#2" key. (Wait until beep twice.)
7. Input the MAC CODE 2. (3 digits)
8. Press "#2" key. (Initialization receipt is issued.)
9. Initialize operation is executed.

MAC CODE 1 : D11 to D1 (11 digits)

Description	Choice	Program code
Print PGM mode password, when flag clear	Yes = 0 No = 4	D11 =
Password in PGM3 to 7 mode	Significant number 4 digits	D10 to D7 =
Messages and descriptions are written in English=0, French=1, Spanish=2, German=4	Significant number	D6 =
Model for USA or Canada=2, German=4, Other area (0.00) =1, Other area (0) = 3	Significant number	D5 =
Department No. (15 ,20, or 30)	Fixed	D3 D4 =
Use clerk switch or push switch = 0 Use clerk lock Key or secrec code key = 1	Significant number A	D2 = A + B
For scanning initialization pattern = 0 For check tracking initialization pattern = 2	Significant number B	
Use Euro only	No = 0 Yes = 1	D1 =

MAC CODE 2 : D3 to D1 (3 digits)

Description	Choice	Program code
Inline baud rate	156Kbps = 0 312Kbps = 1	D3 =
Inline physical I.D. number (01 to 32)	Significant number 2 digits	D2 to D1 =

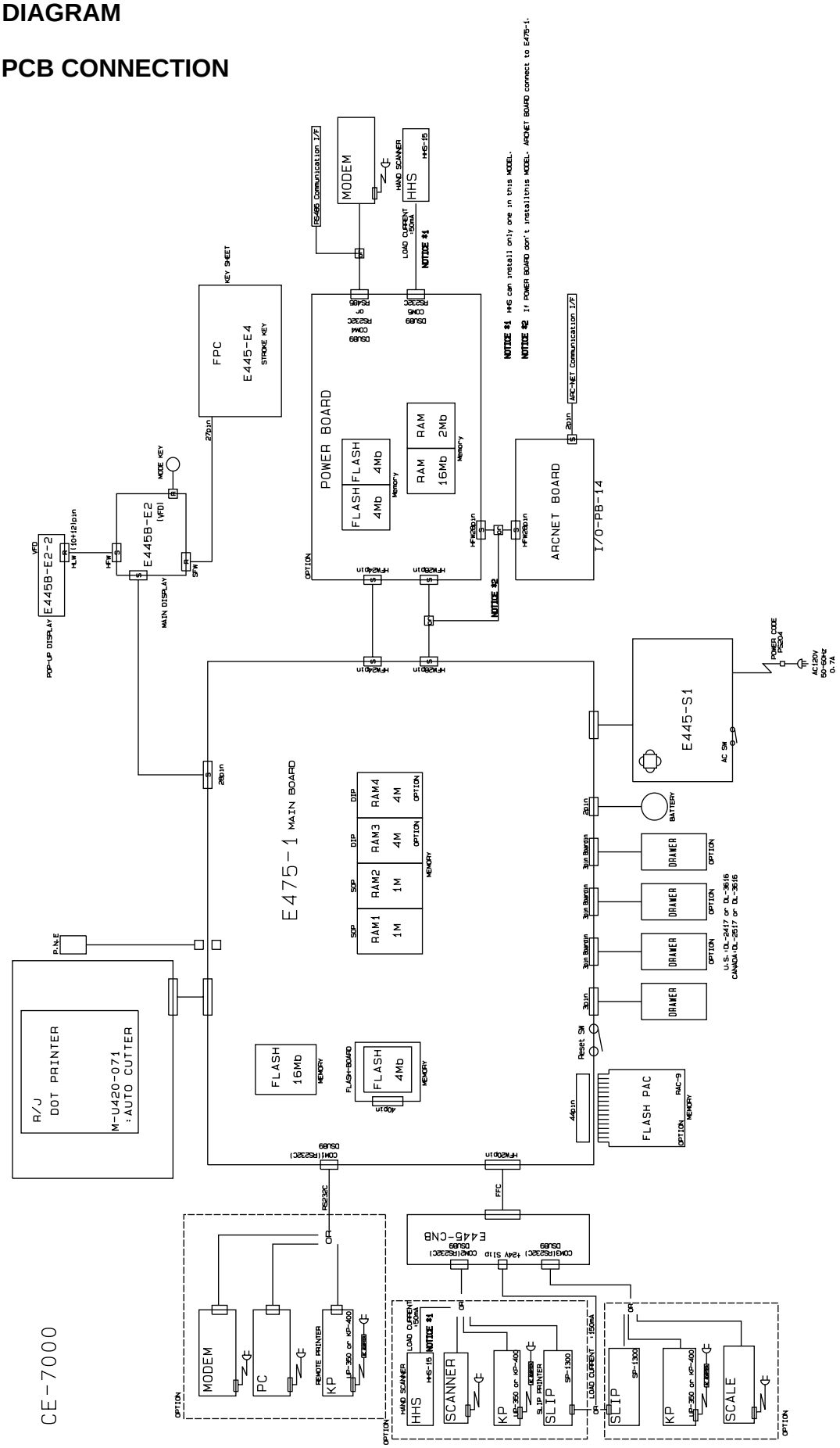
3. F-INIT (FMAC) OPERATION

1. Plug the power cord into an AC outlet.
2. Set the mode switch to "OFF" position.
3. While pressing the Receipt feed button , turn the mode switch to "PGM" position.
4. Release the receipt feed button.
5. Press "#2" key.

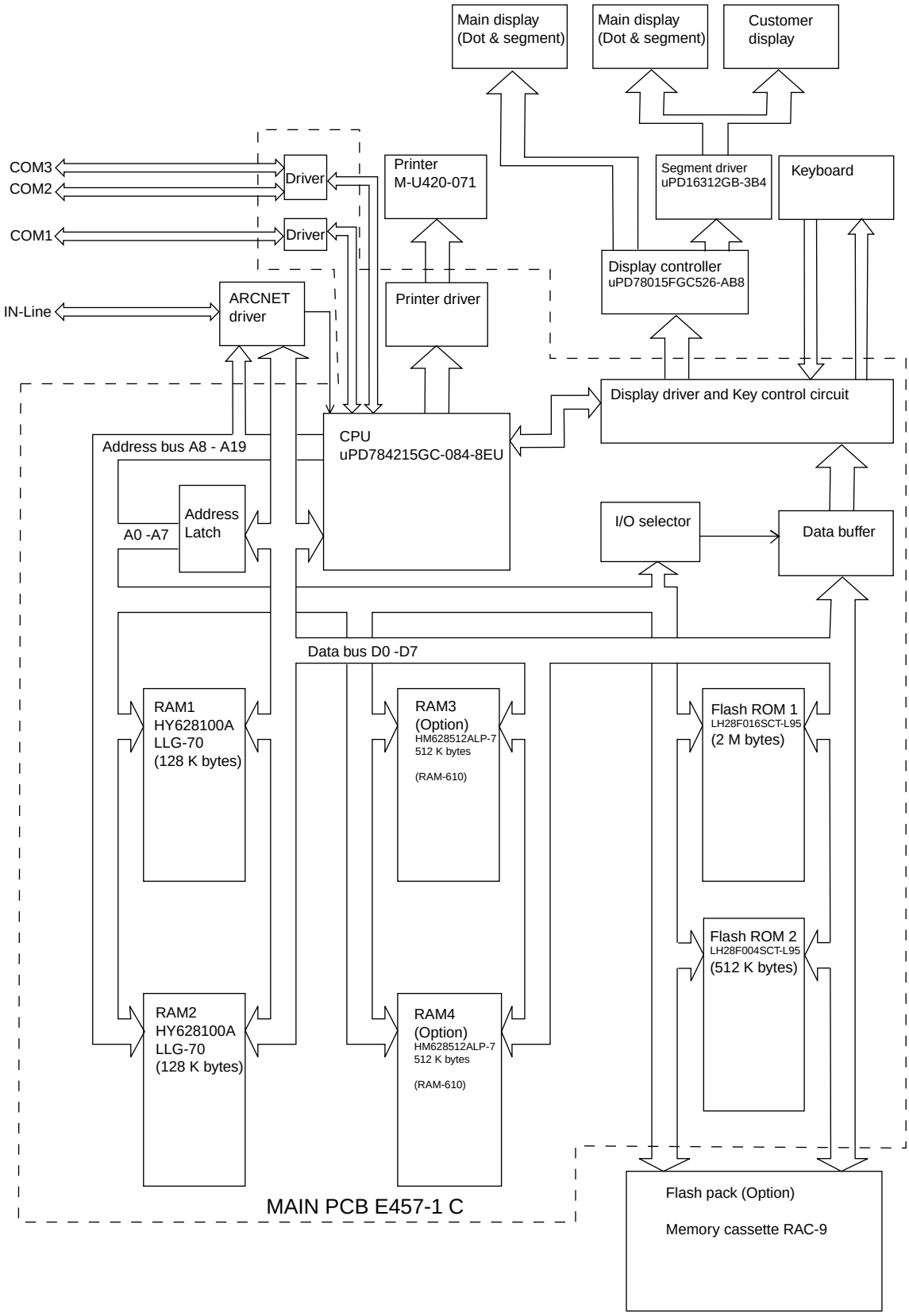
Note : The location of "#2" key, see "HARD KEY CODE TABLE" on page 31.

4. BLOCK DIAGRAM

4-1. PCB CONNECTION

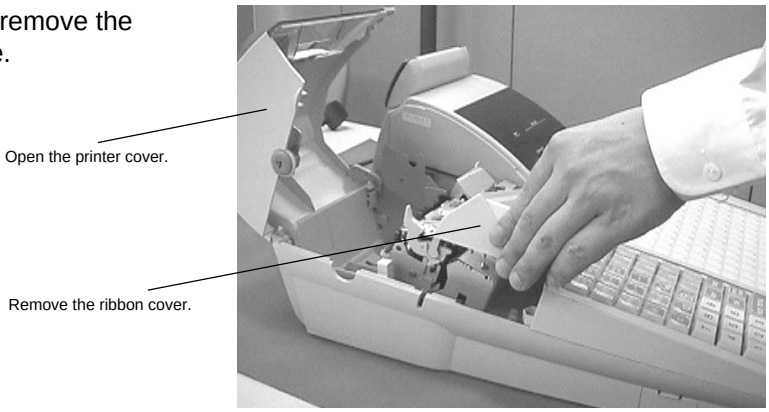


4-2. BLOCK DIAGRAM (CE-7000)

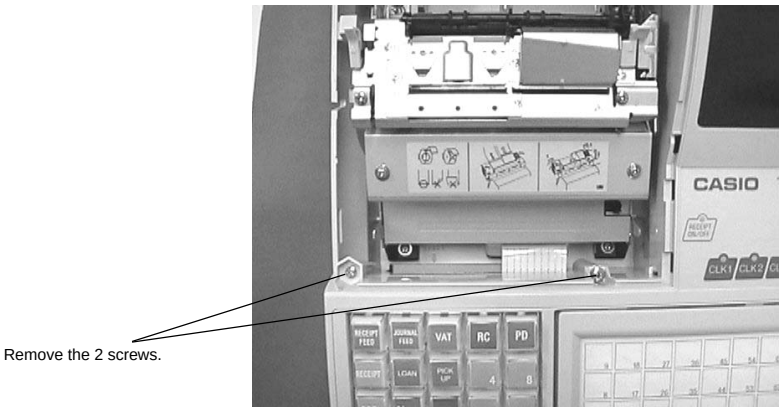


5. TO OPEN THE UPPER CASE

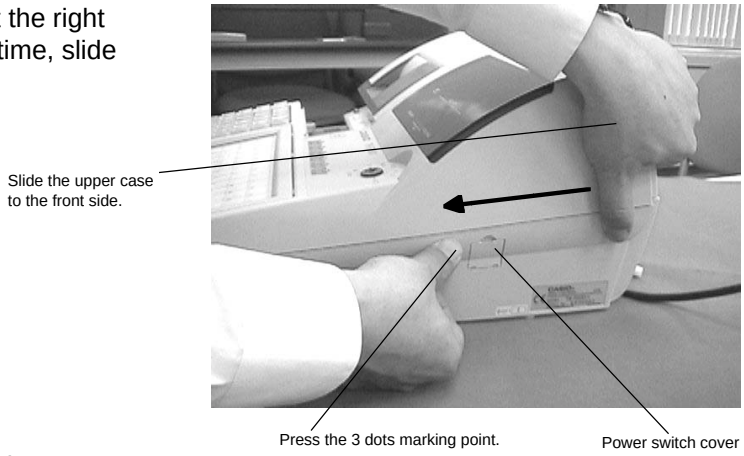
1. Open the printer cover. Then, remove the ribbon cover from the machine.



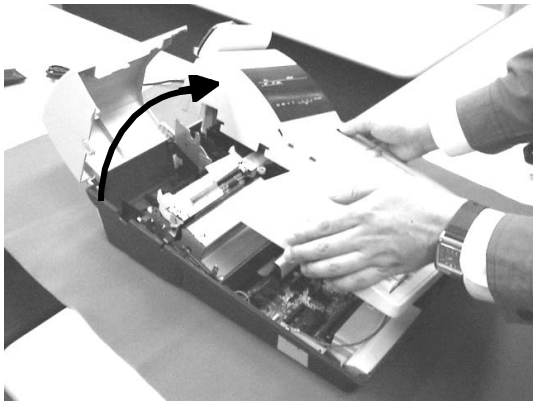
2. Remove the 2 screws of the upper case.



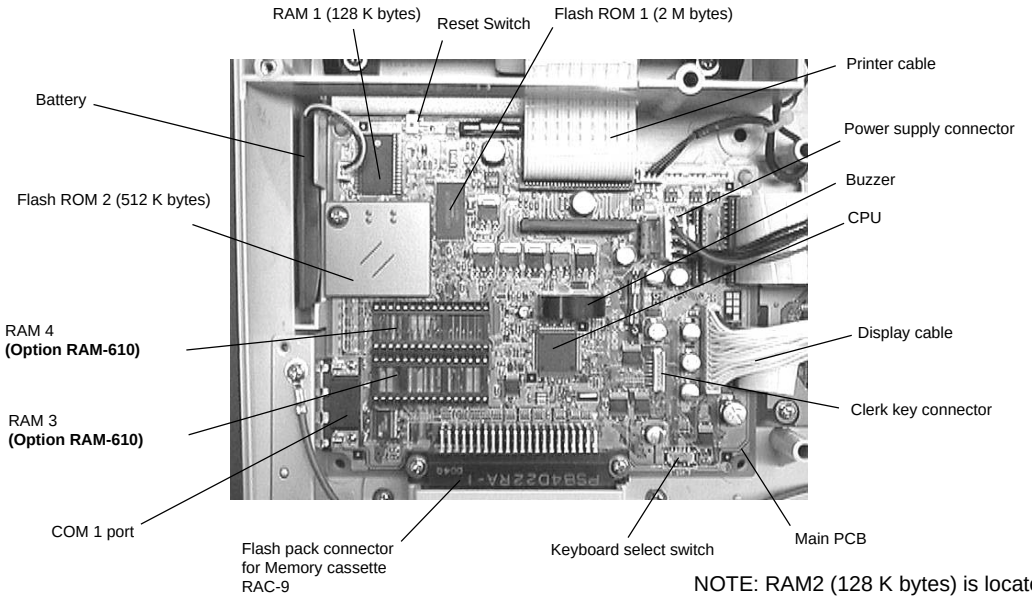
3. Push the 3 dots marking point at the right side of lower case. At the same time, slide the upper case to the front side.



4. Open upper case from the left side.

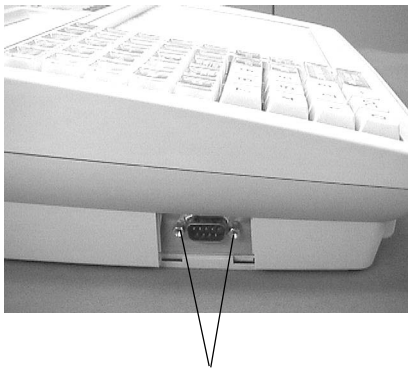


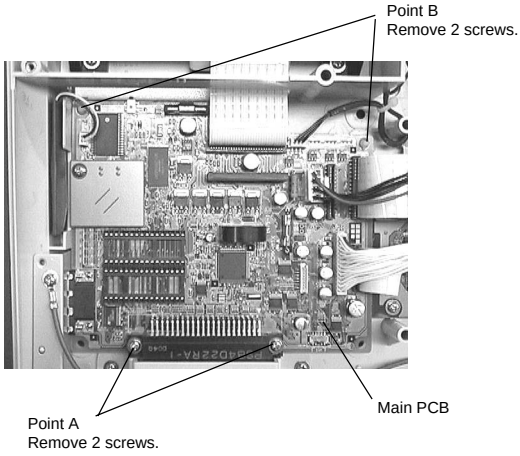
5. The each parts of the Main PCB are located as shown in the picture.



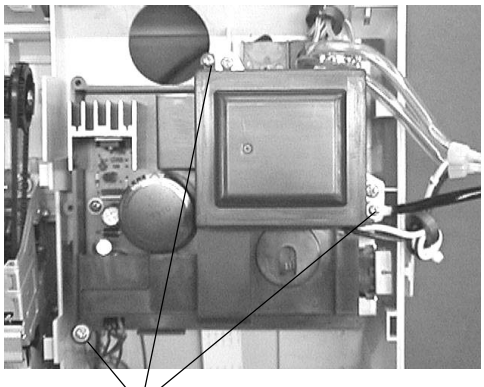
NOTE: RAM2 (128 K bytes) is located on the back side of Main PCB.

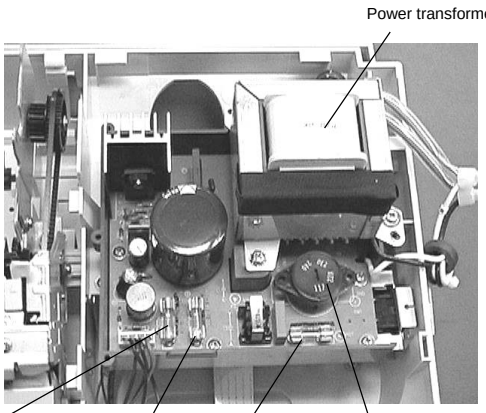
6. To remove the Main PCB, release the 2 screws of point A and 2 locking supporters of point B and the COM1 port outside screws.





7. Power supply unit cover is removed by 3 screws. And, the 3 Fuses are located as shown in the picture.





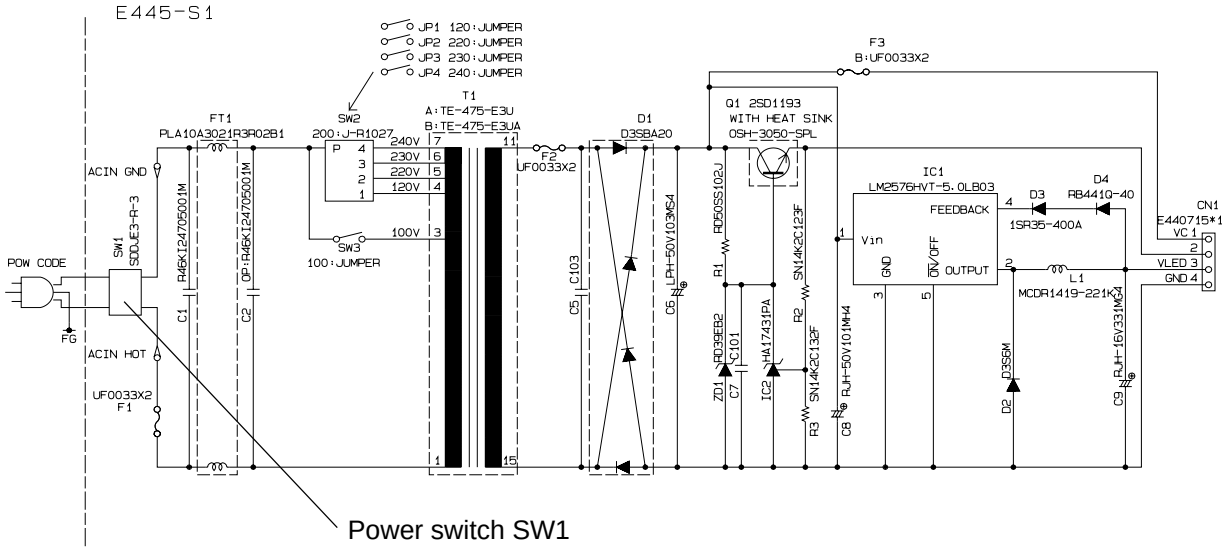
6.CIRCUIT EXPLANATION

6-1. Power supply circuit

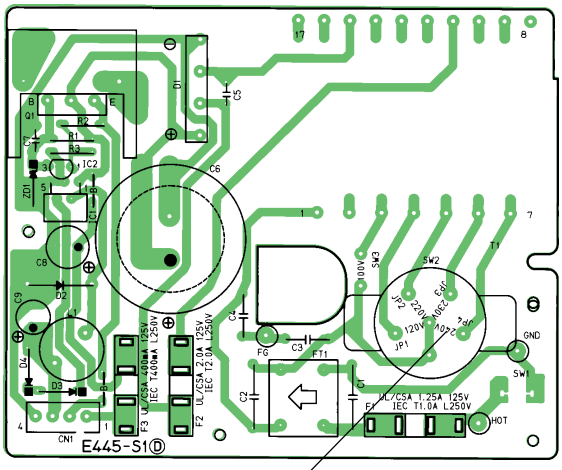
The power supply circuit provides the following voltage for the main circuit.

Output Pin No1-----	VC1 (DC32.3V):	To the VC line for the Display power.
Output Pin No.2----	VC2 (DC24V):	To the Vp line for the printer power.
Output Pin No.3----	VLED (DC5.85V):	To the Vcc,Vcc2 and Vdd for the logic circuit power.
Output Pin No.4----	GND:	Signal GND.

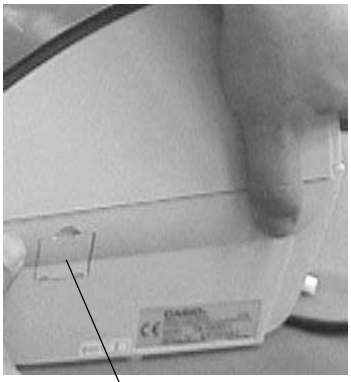
The power switch SW1 is located at the right side of the lowercase.
After connected the power plug into AC outlet and turn on the SW1, the transformer T1 will genarate the about AC33V to secondary side. Then, after rectifier circut, the VC1 (DC32.3V) is supplied to the VC line for display power (for the drive of display tube. Not for LED model.) The IC2 is the shunt regulator for the control of Q1 transistor. This circuit is genarate the VC2 (DC24V) for the printer power. The IC1 is regulator for 5V power supply.



Power supply PCB E445-S1



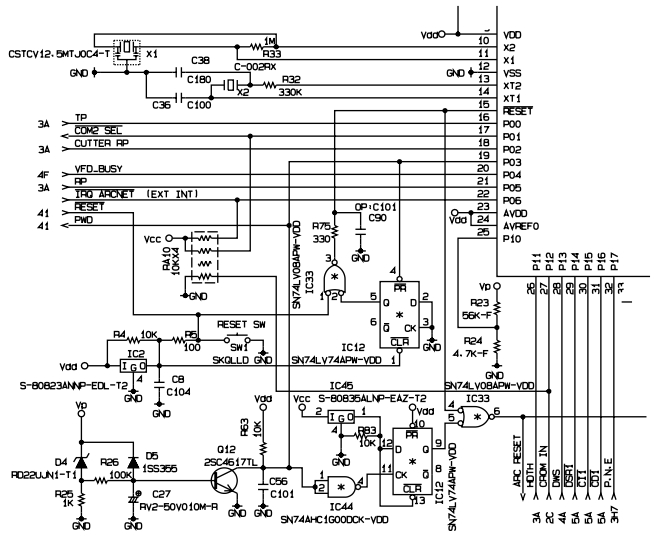
Voltage selector
NOTE: Do not turn the selector to avoid the voltage selection mistake.

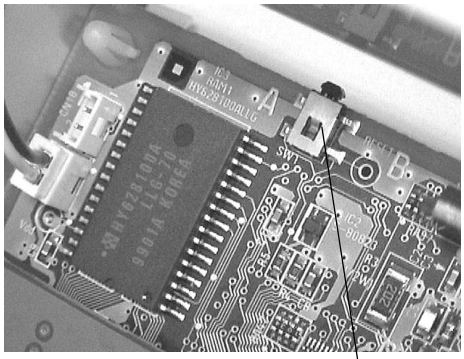


Power SW1 cover

6-2. Reset and power down circuit

The rest and power down circuit are as following circuit. The reset switch is provided for the hard reset to cleare the system error. Use this switch only when the FMAC or MAC are not possible to perform.

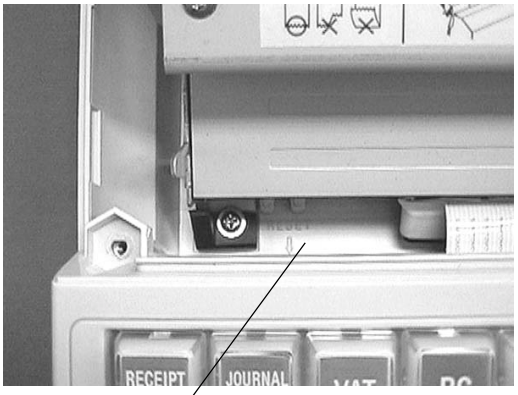




Reset switch

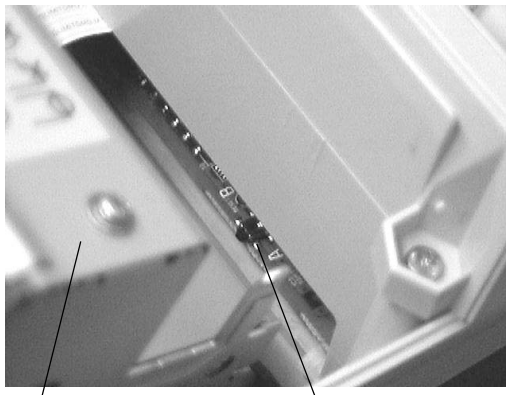
The position of Reset switch

From top of view



The mark of reset switch

From rear of view

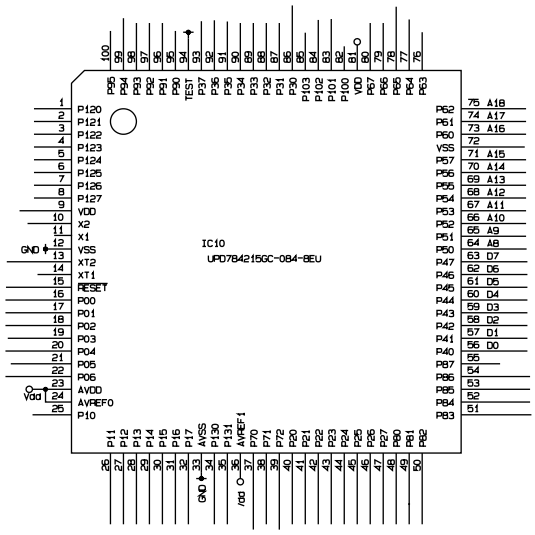


Printer

Reset switch

6-3. CPU pin description(uPD784215GC-084-8EU)

The CPU pin descriptions are as follows:



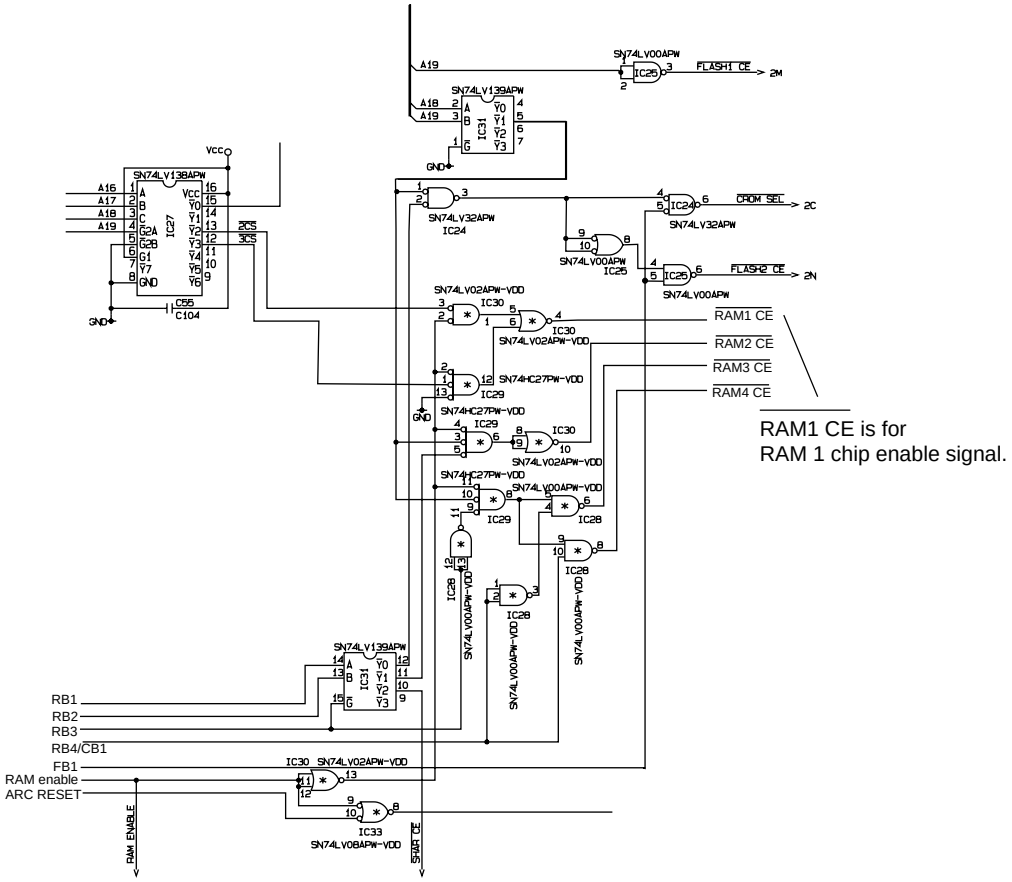
CPU pin description(uPD784215GC-084-8EU)

Pin No.	Signal Name		Description	In/Out
1	P120	$\overline{\text{HD1}}$	HEAD PIN DRIVE HD1	Out
2	P121	$\overline{\text{HD2}}$	HEAD PIN DRIVE HD2	Out
3	P122	$\overline{\text{HD3}}$	HEAD PIN DRIVE HD3	Out
4	P123	$\overline{\text{HD4}}$	HEAD PIN DRIVE HD4	Out
5	P124	$\overline{\text{HD5}}$	HEAD PIN DRIVE HD5	Out
6	P125	$\overline{\text{HD6}}$	HEAD PIN DRIVE HD6	Out
7	P126	$\overline{\text{HD7}}$	HEAD PIN DRIVE HD7	Out
8	P127	HDGATE2	HEAD GATE2	Out
9	VDD	VDD	Power supply VDD +5V	
10	X2	X2	Clock 12.5 MHz	In
11	X1	X1	Clock 12.5 MHz	In
12	VSS	GND	Power supply GND	
13	XT2	XT2	Clock	In
14	XT1	XT1	Clock	In
15	RESET	$\overline{\text{RESET}}$	Reset termial	In
16	P00	TP	Timing pulse from printer TP	In
17	P01	$\overline{\text{COM2 SEL}}$	COM 2 selection	Out
18	P02	CUTTER RP	Auto-cutter reset pulse CUTTER RP	In
19	P03	PWD	Power down signal	In
20	P04	VFD BUSY	Display controller busy signal	In
21	P05	RP	Reset pulse from printer RP	In
22	P06	$\overline{\text{IRQ ARCNET}}$	Interrupt rquest from ARCNET controller	In
23	AVDD	VDD	Power supply VDD +5V	
24	AVREF0	AVREF0	Connected to VDD +5V	
25	P10	AVREF	Vp voltage check terminal	In
26	P11	HDTH	Head thermistor input	In
27	P12	CROM IN	Flash ROM cassette in signal	In
28	P13	DWS	Drawer sensor input	In
29	P14	$\overline{\text{DSR1}}$	COM1 DSR signal	In
30	P15	$\overline{\text{CI1}}$	COM1 CI signal	In
31	P16	$\overline{\text{CD1}}$	COM1 CD signal	In
32	P17	P.N.E.	Paper near end sensor input	In
33	AVSS	GND	Power supply GND	
34	P130	$\overline{\text{LED SLATCH}}$	LED Latch signal	Out
35	P131	$\overline{\text{LED CE}}$	LED chip enable signal	Out
36	AVREF1	VDD	Connected to VDD +5V	
37	P70	$\overline{\text{RX2}}$	COM2 and COM3 receive data	In
38	P71	$\overline{\text{TX2}}$	COM2 and COM3 transmit data	Out
39	P72	RAM ENABLE	RAM enable signal	Out
40	P20	$\overline{\text{RX1}}$	COM1 receive data	In
41	P21	$\overline{\text{TX1}}$	COM1 transmit data	Out
42	P22	$\overline{\text{RTS1}}$	COM1 RTS signal	Out
43	P23	MOTOR	Motor drive signal	Out
44	P24	$\overline{\text{RTS2}}$	COM2 RTS signal	Out
45	P25	LED SIN	LED data in signal	In
46	P26	LED SOUT	LED data out signal	Out
47	P27	$\overline{\text{LED SCK}}$	LED SCK signal out	Out
48	P80	RB0/CB0	Bank selection RB0/CB0	Out
49	P81	RB1	Bank selection RB1	Out
50	P82	RB2	Bank selection RB2	Out

Pin No.	Signal Name		Description	In/Out
51	P83	RB3	Bank selection RB3	Out
52	P84	RB4/CB1	Bank selection RB4/CB1	Out
53	P85	FB0/CB2	Bank selection FB0/CB2	Out
54	P86	FB1	Bank selection FB1	Out
55	P87	FB2	Connected to GND	
56	P40	D0	Data/address bus D0/A0	In/Out
57	P41	D1	Data/address bus D1/A1	In/Out
58	P42	D2	Data/address bus D2/A2	In/Out
59	P43	D3	Data/address bus D3/A3	In/Out
60	P44	D4	Data/address bus D4/A4	In/Out
61	P45	D5	Data/address bus D5/A5	In/Out
62	P46	D6	Data/address bus D6/A6	In/Out
63	P47	D7	Data/address bus D7/A7	In/Out
64	P50	A8	Address bus A8	Out
65	P51	A9	Address bus A9	Out
66	P52	A10	Address bus A10	Out
67	P53	A11	Address bus A11	Out
68	P54	A12	Address bus A12	Out
69	P55	A13	Address bus A13	Out
70	P56	A14	Address bus A14	Out
71	P57	A15	Address bus A15	Out
72	VSS	GND	Power supply GND	
73	P60	A16	Address bus A16	Out
74	P61	A17	Address bus A17	Out
75	P62	A18	Address bus A18	Out
76	P63	A19	Address bus A19	Out
77	P64	RD	Read signal	Out
78	P65	WR	Write signal	Out
79	P66	$\overline{\text{WAIT}}$	Wait signal	In
80	P67	ASTB	Address strobe signal	Out
81	VDD	VDD	Power supply VDD +5V	
82	P100	BUZZER	Buzzer output signal	Out
83	P101	R.FEED	Receipt paper feed signal	Out
84	P102	J.FEED	Journal paper feed signal	Out
85	P103	STAMP	Stamp signal	Out
86	P30	HDGATE1	Head gate 1 signal	Out
87	P31	$\overline{\text{FLASH RST}}$	Flash reset signal	Out
88	P32	$\overline{\text{DTR1}}$	COM1 DTR signal	Out
89	P33	$\overline{\text{CTS1}}$	COM1 CTS signal	In
90	P34	$\overline{\text{DTR2}}$	COM2 DTR signal	Out
91	P35	HDPLS	Head pulse signal	In
92	P36	DW1	Drawer signal 1	Out
93	P37	DW2	Drawer signal 2	Out
94	TEST	GND	Connected to GND	
95	P90	MODE SIN	Mode switch data in signal	In
96	P91	MODE SCK	Mode switch SCK signal	Out
97	P92	$\overline{\text{MODE SLOAD}}$	Mode switch data load signal	Out
98	P93	$\overline{\text{KI SLOAD}}$	Key data load signal	Out
99	P94	$\overline{\text{HD8}}$	HEAD PIN DRIVE HD8	Out
100	P95	$\overline{\text{HD9}}$	HEAD PIN DRIVE HD9	Out

6-4. Memory chip selection circuit

The RAM chip select signals made by the following circuit.
There are 4 chip enable signal lines for RAM selection and 3 chip enable signal lines for Flash ROM selection (including Memory cassette).



RAM1 CE is for
RAM 1 chip enable signal.

RAM1 selection

The RAM1 is selected by the RAM enable signal "H" and the $\overline{2CS}$ signal " L" of output pin No.13 . The $\overline{2SC}$ signal becomes "L" when the CPU address is as follows:

A19	A18	A17	A16	A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	A4	A3	A2	A1	A0
L	L	H	L	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2				X				X				X				X			

Also, the $\overline{3SC}$ signal becomes "L" when the CPU address is as follows:

A19	A18	A17	A16	A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	A4	A3	A2	A1	A0
L	L	H	H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3				X				X				X				X			

Therefore, the $\overline{RAM1\ CE}$ will active when the CPU adress is from 20000H to 3FFFFH with RAM enable signal "H".

Flash ROM1 selection

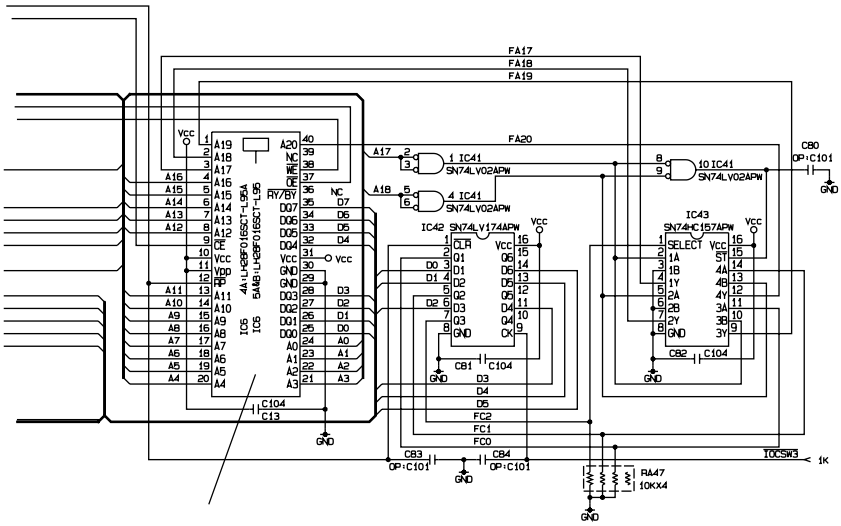
The $\overline{Flash\ 1\ CE}$ will active by the IC25 output pin No.3. This is inverted signal of A19.

A19	A18	A17	A16	A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	A4	A3	A2	A1	A0
H	L	L	L	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8				X				X				X				X			

Therefore, the $\overline{Flash1\ CE}$ will active when the CPU adress is from 80000H to FFFFFH.

6-5. Flash ROM1 address circuit

The Flash ROM1 address signals FA17 to FA20 are made by the following circuit.
The Flash ROM1 (LH28F016SCT-L95, 16M bits) is used for the application program.

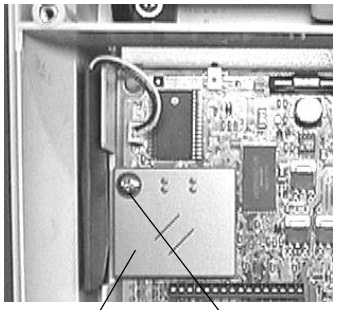


Flash ROM1 (16M bits)

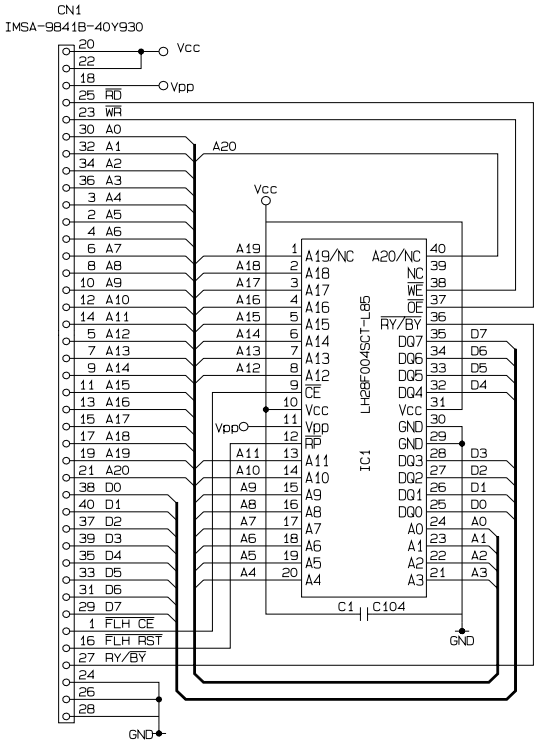
CPU address			BANK port				Flash memory address					NOTE	
A19	A18	A17	FC2	FC1	FC0	BANK	FA20	FA19	FA18	FA17	Memory block No.	8M bank	16M bank
H	L	L	L	L	L	0	L	L	$\overline{A18}$	$\overline{A17}$	02 to 07		
	L	H	L	L	H	1	L	H	$\overline{A18}$	$\overline{A17}$	0A to 0F		
	H	L	H	X	X	2	$\overline{A18}$	$\overline{A17}$	L	L	08,09		
											10,11,18,19		
			L	H	L	3	H	L	$\overline{A18}$	$\overline{A17}$	12 to 17		
			L	H	H	4	H	H	$\overline{A18}$	$\overline{A17}$	1A to 1F		
H	H	H	X	X	X	Common	L	L	L	L	00,01	Common	

6-6. Flash ROM2 circuit

The Flash ROM2 is mounted to the small PCB E475-FLS. The PCB E475-FLS is connected to connector CN10 of the Main PCB E475-1.

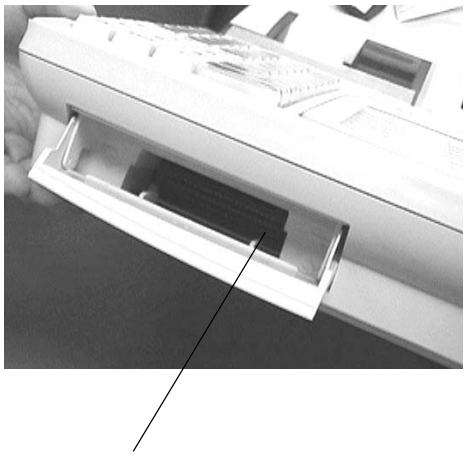


Flash ROM2 (512 K bytes)
PCB E475-FLS



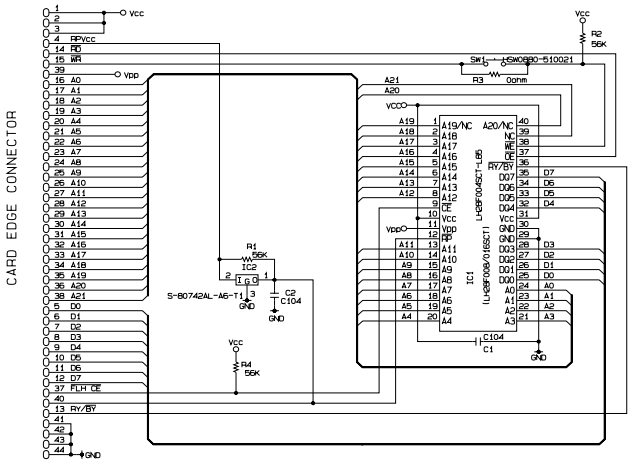
6-7. Flash Pack circuit (Memory Cassette RAC-9)

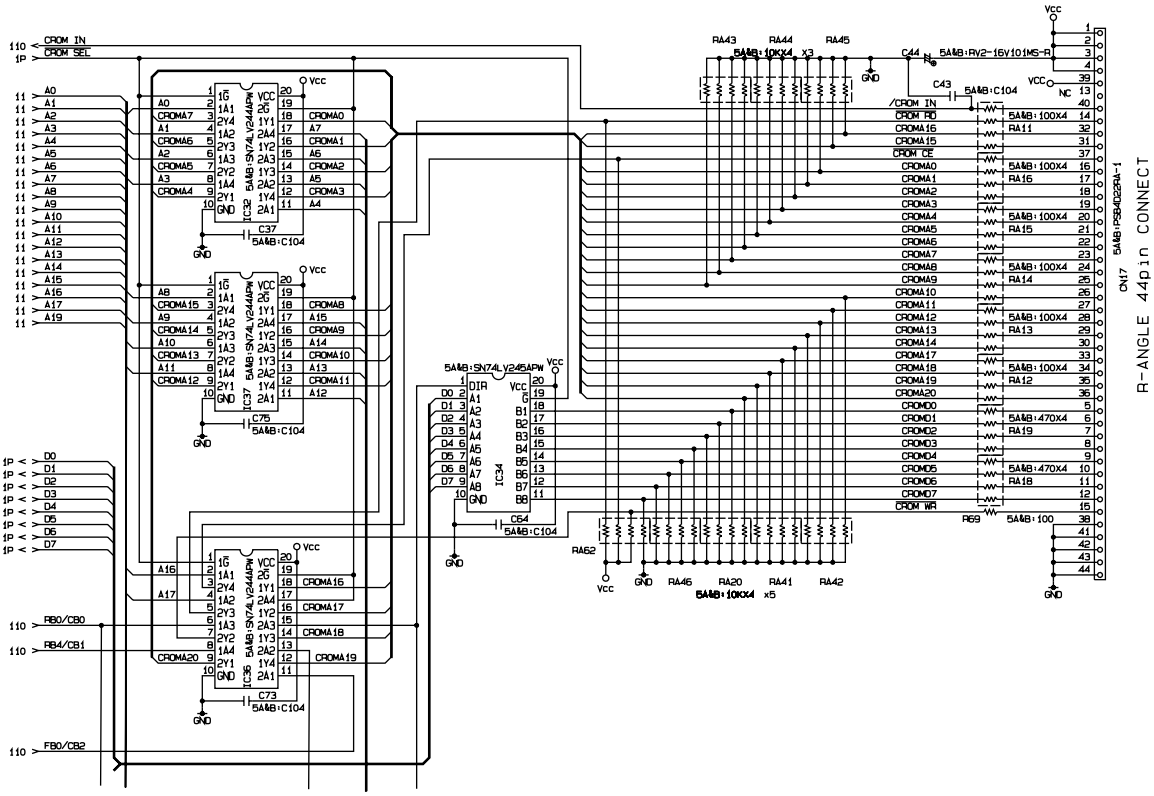
The Memory Cassette RAC-9 (2 M bytes) is possible to connect to the Flash Pack connector CN17 of the Main PCB E475-1.



Flash Pack connector

[RAC-9 circuit diagram]



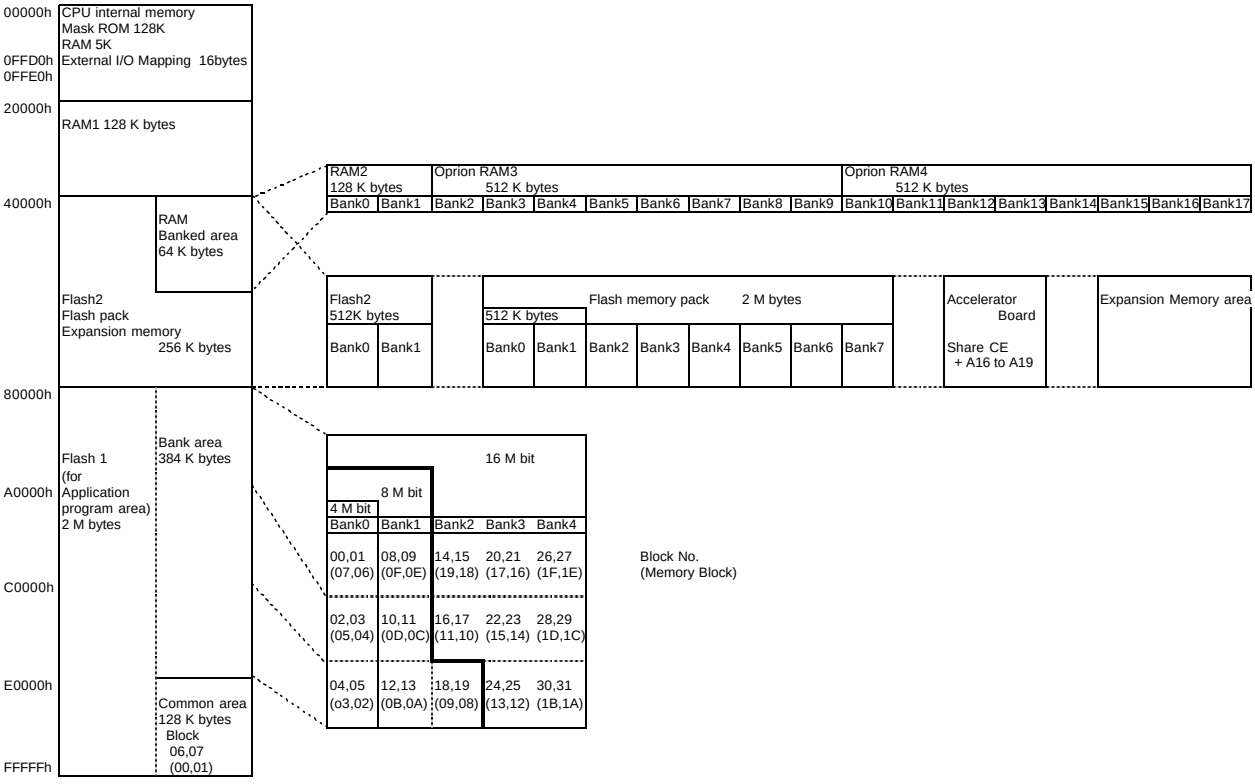


6-8. Memory map

The memory table is as follows:

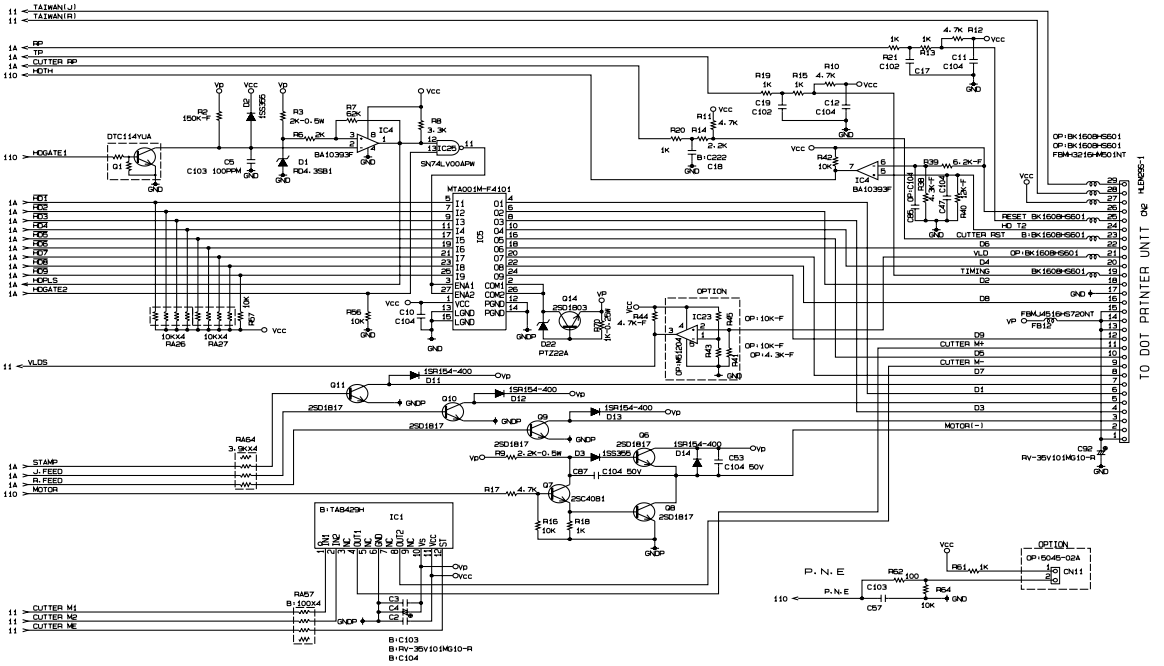
RAM enable	2CS	3CS	4CS	8CS	CCS	A18	A19	RAM BANK						Flash BANK			RAM1		RAM2			RAM3				RAM4				Flash1		Flash2		Flash pack			
								No.	RB0	RB1	RB2	RB3	RB4	FB0	FB1	FB2	CS	A16	CS	CS2	A16	CS	A16	A17	A18	CS	A16	A17	A18	CS	A18	CS	A18	CS	A18	A19	A20
H	L	H	H	H	H	L	L	COM	X	X	X	X	X	X	X	X	L	L	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
H	H	L	H	H	H	L	L	COM	X	X	X	X	X	X	X	X	L	H	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
H	H	H	L	H	H	H	L	0	L	H	L	L	X	X	X	X	H	X	L	H	L	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
								1	H	H	L	L	X	X	X	X	H	X	L	H	H	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
H	H	H	L	H	H	H	L		L	L	H	L	X	X	X	X	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
									H	L	H	L	X	X	X	X	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
H	H	H	L	H	H	H	L		L	H	H	L	X	X	X	X	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
									H	H	H	L	X	X	X	X	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
H	H	H	L	H	H	H	L	2	L	L	L	H	L	X	X	X	H	X	H	H	X	L	L	L	L	H	X	X	X	H	X	H	X	H	X	X	X
								3	H	L	L	H	L	X	X	X	H	X	H	H	X	L	H	L	L	H	X	X	X	H	X	H	X	H	X	X	X
								4	L	H	L	H	L	X	X	X	H	X	H	H	X	L	L	H	L	H	X	X	X	H	X	H	X	H	X	X	X
								5	H	H	L	H	L	X	X	X	H	X	H	H	X	L	H	H	L	H	X	X	X	H	X	H	X	H	X	X	X
								6	L	L	H	H	L	X	X	X	H	X	H	H	X	L	L	L	H	H	X	X	X	H	X	H	X	H	X	X	X
								7	H	L	H	H	L	X	X	X	H	X	H	H	X	L	H	L	H	H	X	X	X	H	X	H	X	H	X	X	X
								8	L	H	H	H	L	X	X	X	H	X	H	H	X	L	L	H	H	H	X	X	X	H	X	H	X	H	X	X	X
								9	H	H	H	H	L	X	X	X	H	X	H	H	X	L	H	H	H	H	X	X	X	H	X	H	X	H	X	X	X
								10	L	L	L	H	H	X	X	X	H	X	H	H	X	H	X	X	X	L	L	L	L	H	X	H	X	H	X	X	X
								11	H	L	L	H	H	X	X	X	H	X	H	H	X	H	X	X	X	L	H	L	L	H	X	H	X	H	X	X	X
								12	L	H	L	H	H	X	X	X	H	X	H	H	X	H	X	X	X	L	L	H	L	H	X	H	X	H	X	X	X
								13	H	H	L	H	H	X	X	X	H	X	H	H	X	H	X	X	X	L	H	H	L	H	X	H	X	H	X	X	X
								14	L	L	H	H	H	X	X	X	H	X	H	H	X	H	X	X	X	L	L	L	H	H	X	H	X	H	X	X	X
								15	H	L	H	H	H	X	X	X	H	X	H	H	X	H	X	X	X	L	H	L	H	H	X	H	X	H	X	X	X
								16	L	H	H	H	H	X	X	X	H	X	H	H	X	H	X	X	X	L	L	H	H	H	X	H	X	H	X	X	X
								17	H	H	H	H	H	X	X	X	H	X	H	H	X	H	X	X	X	L	H	H	H	H	X	H	X	H	X	X	X
L	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	H	X	H	L	X	H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
X	H	H	L	H	H	H	L		H	L	L	L	X	H	H	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	L	H	H	X	X	X
									H	L	L	L	X	H	H	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	L	H	H	X	X	X
X	H	H	L	H	H	H	L		L	L	L	H	L	H	X	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	L	H	L	L	L	L
									H	L	L	L	L	L	L	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	L	H	L	L
									L	L	L	H	L	L	L	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	L	L	H	L
									H	L	L	L	H	L	L	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	L	H	H	L
									L	L	L	H	L	H	L	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	L	L	H	H
									H	L	L	L	L	H	L	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	L	H	L	H
									L	L	L	L	H	H	L	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	L	L	H	H
									H	L	L	L	H	H	L	L	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	L	H	H	H
X	H	H	L	H	H	H	L		X	L	L	L	X	L	X	H	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
									X	L	L	L	X	H	X	H	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	L	X	X	X
X	H	H	H	L	H	L	H		X	X	X	X	X	L	X	H	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
									X	X	X	X	X	H	X	H	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
H	H	H	H	L	H	L	H		X	X	X	X	X	L	X	H	H	X	H	H	X	H	X	X	X	H	X	X	X	H	X	H	X	H	X	X	X
H	H	H	H	H	L	H	H		X	X	X	X	X	X	X	X	H	X	H	H	X	H	X	X	X	H	X	X	X	L	A18	H	X	H	X	X	X

Memory map



6-9. Printer drive circuit

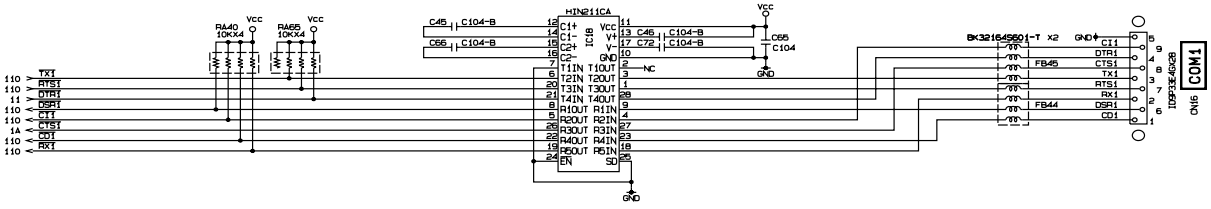
The printer drive circuit is as follows:



IC5 (MTA001M-F4101) is the head pin driver IC. And, the Transistors Q6,Q7 and Q8 are the motor drive circuit. The IC1 (TA8429H) is the auto paper cut driver circuit.

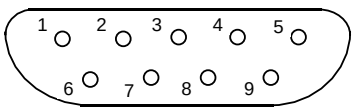
6-10. RS232C port COM1 circuit

The COM1 circuit is as follows:



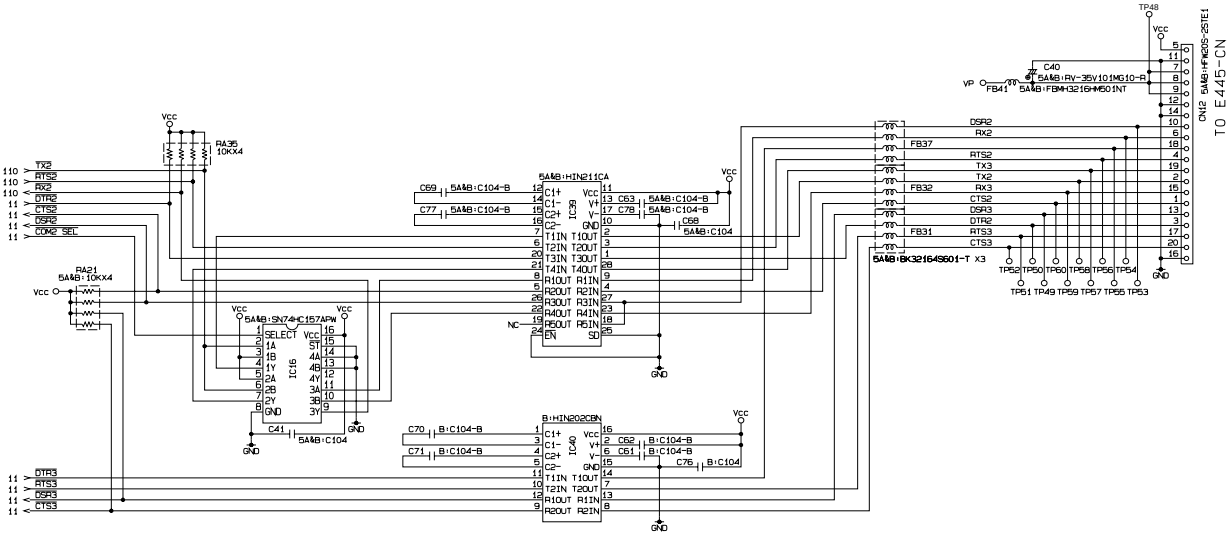
The COM1 port pin location is as shown below:

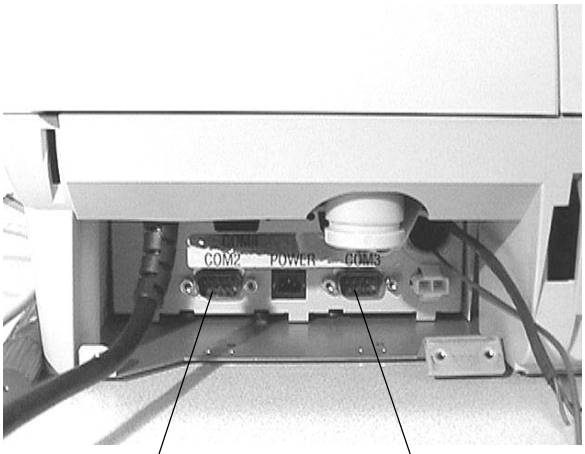
Signal	Pin
CD	1
RxD	2
TxD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
CI	9



6-11. RS232C port COM2 and COM3 circuit

The circuits of COM2 and COM3 are as follows:





COM2 COM3

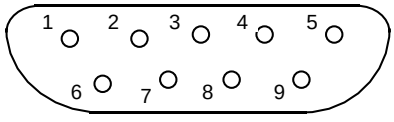
The COM2, and COM3 port pin locations are as shown below:

COM2 port

Signal	Pin
NC	1
RxD	2
TxD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
VCC(+5V)	9

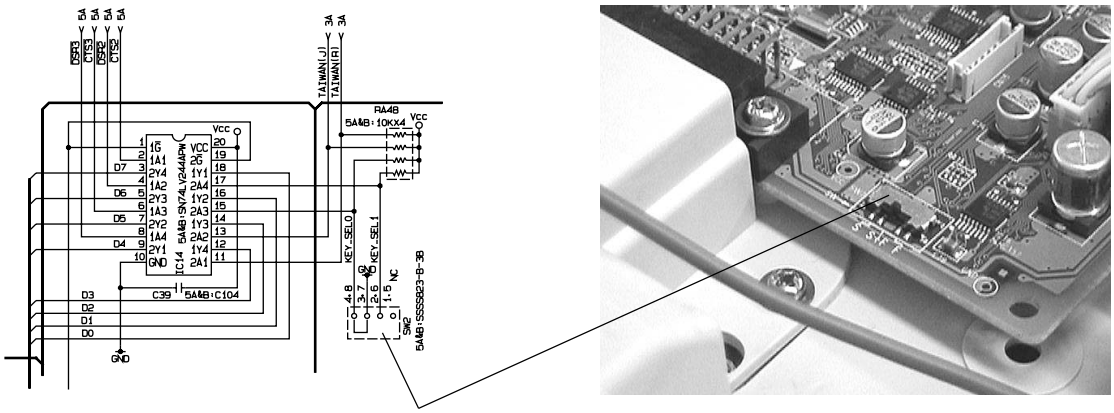
COM3 port

Signal	Pin
NC	1
RxD	2
TxD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
NC	9



6-12. Keyboard selection switch

The main PCB has the keyboard selection switch to detect the keyboard type.
For the model CE-7000, set the switch to S position for the stroke key type.



Keyboard selection switch

6-10. To mount optional circuit

The following optional circuits are provided for this model.

1. Clerk key circuit
2. Multi-drawer circuit
3. Paper near end sensor circuit

1) Clerk key circuit

NOTE1 : This circuit is mounted from factory for the destination Germany.
NOTE2 : It is not option item for USA and Canada.

1-1. Prepare the following parts kit for clerk key circuit. The follwing parts kits are supplied from sales division.

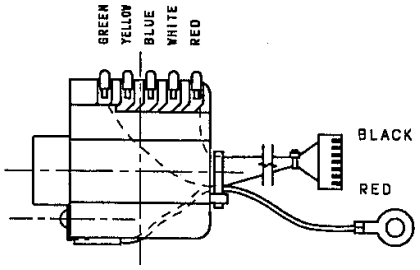
CLK-K19 Clerk key kit for 4 clerks
CLK-K20 Clerk key kit for 6 clerks
CLK-K21 Clerk key kit for 15 clerks

1-2. Check whether the parts of clerk kit are as follows:

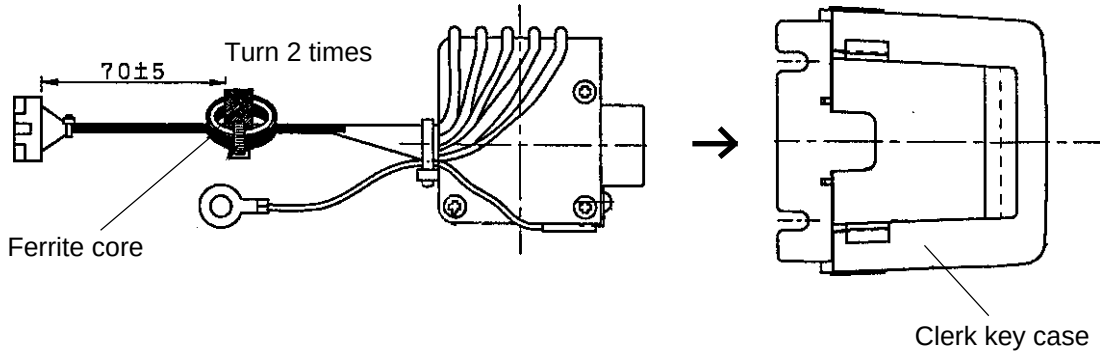
Code No.	Parts Name	Specification	Q'ty
10003976	Clerk unit sub ass'y	E340843A*1	1
34002576	Clerk key switch unit	J-Y7541	1
62482225	Cleak key cable sub ass'y	E440785B*1	1
38401238	FG wire fixing pin	23031-1	1
62158913	FG wire	E32406-2	1
51115760	Screw	2.6 x 8 ZMC-3	1
55600368	Insulok tie	T-18S	2
30304055	Ferrite core	L5T18 x 6 x 10	1
10017367	Clerk key case	E311204A-2	1
10003979	Clerk key set (4keys)	306JYB-135-02R	1
10011117	Mode key plate	E340735A-23	1
10003980	Clerk key set (6keys)	306JYB-135-01R	1
10011785	Clerk key set (15keys)	306JYB-135-03R	1

1-3. Connect the clerk key cable sub ass'y to the clerk key unit. Also, fix the FG wire by the fixing pin and the screw.

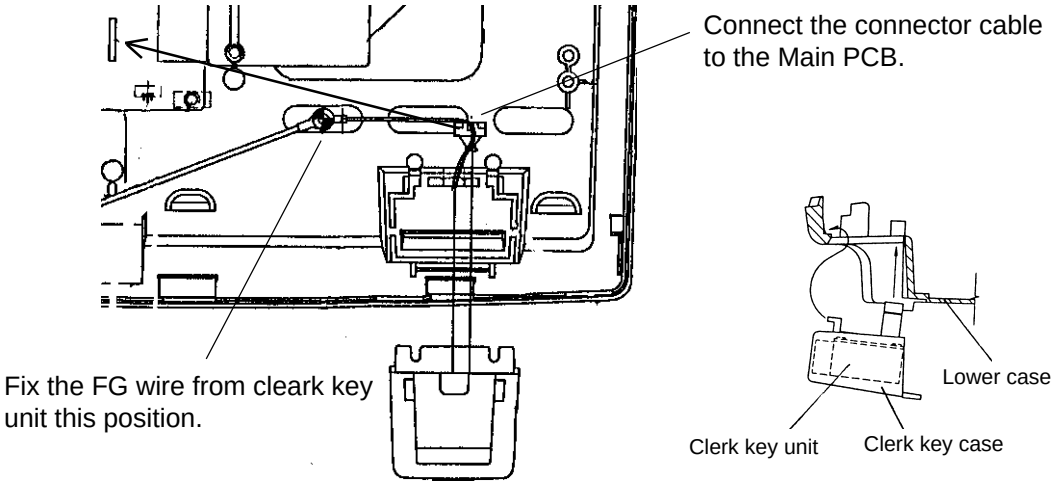
Clerk cable sub ass'y		Clerk key unit
Pin No.	Wire color	Printed mark on PCB
1	Red	C
2	White	1
3	Blue	2
4	Yellow	4
5	Green	8



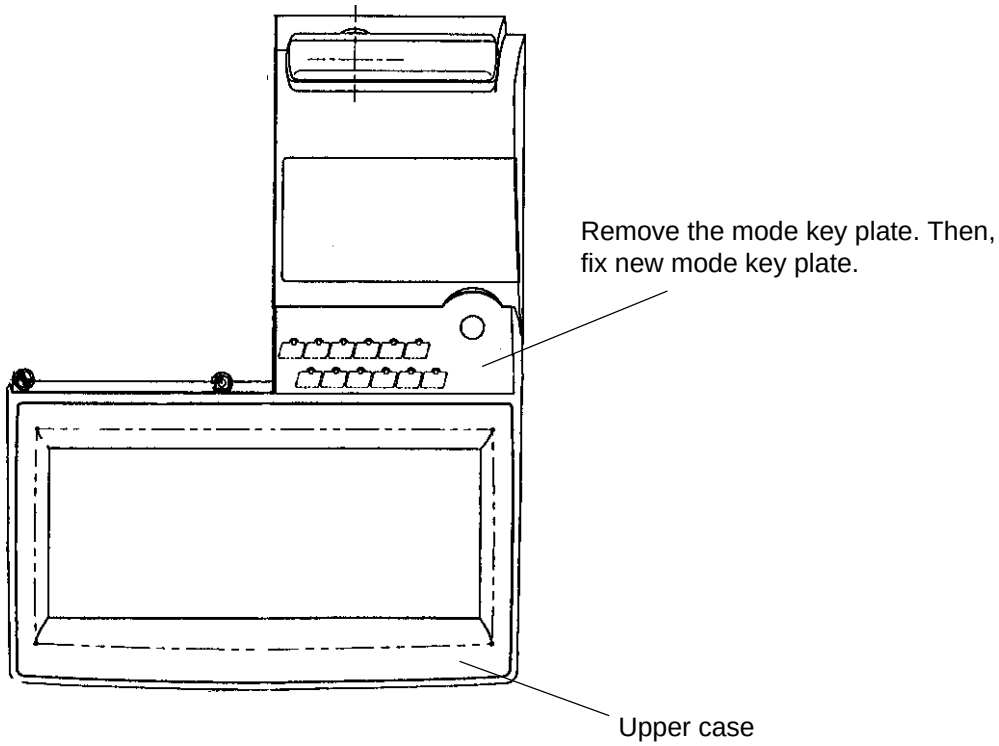
1-4. Insert the clerk switch unit to the clerk key case.



1-5. Cut off the masking plate of clerk key unit of lower case. Then, set the clerk key case and unit to the lower case.


Connect the connector cable to the Main PCB.
Fix the FG wire from cleark key unit this position.
Lower case
Clerk key unit
Clerk key case

1-6. Remove the clerk button unit form the upper case. Then, replace the model key plate.



2) Multi-drawer kit

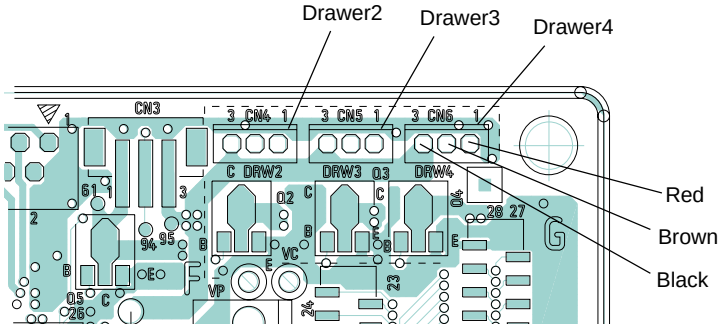
2-1. Prepare the following parts kit for multi-drawer circuit. The parts kits are supplied from sales division.

MDL-10 Multi-drawer kit

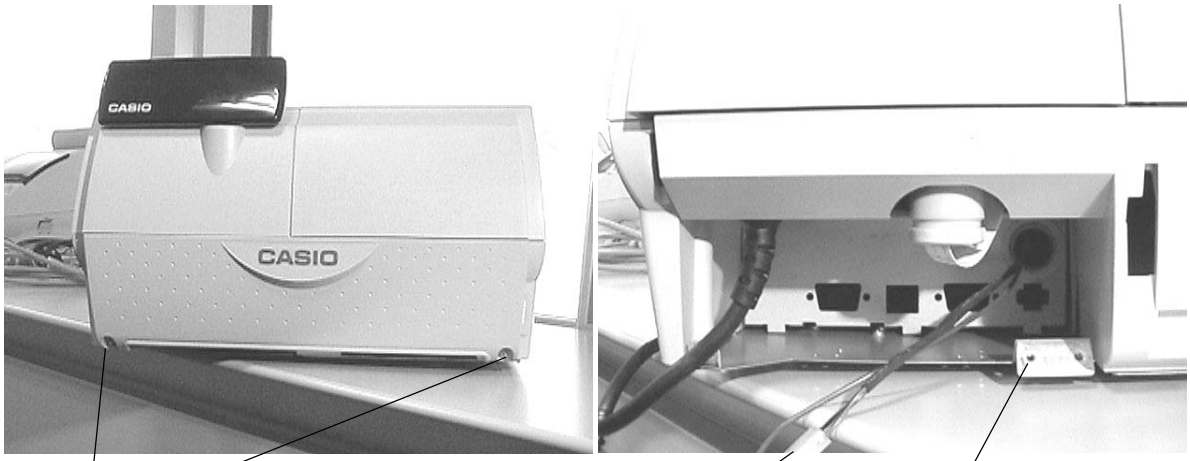
2-2. Check whether the parts of multi-drawer kit are as follows:

Code No.	Parts Name	Specification	Q'ty
10006121	Drawer connector cable	E440721A*1	1
62481534	Extension cable for Drawer	E440714*1	1
59000209	Screw	3X4ZMC-3.	1

2-3. Connect the drawer connector cable to the main PCB by solder.



2-4. Open the back cover of lower cabe to release the 2 screws. Then, connect the necessary extension cable for drawer. In this case, do no forget to fix the FG wire of the extension cable to the frame ground by the screw.



Release the 2 screws and open the back cover of lower case.

Connect the extension drawer cable to the drawer connector.

Fix the FG wire of the extension drawer cable by screw of the parts kit.

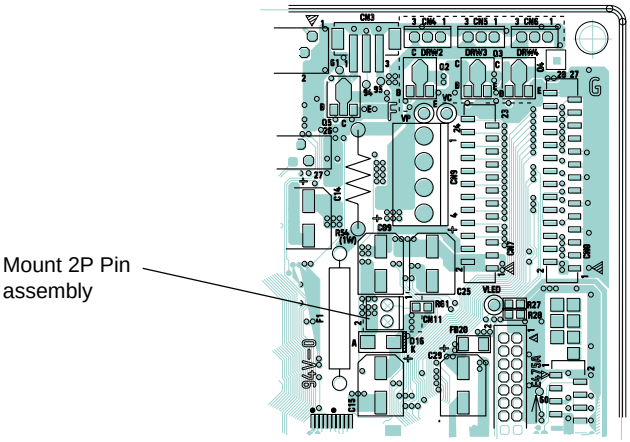
2-5. Connect 1 pin FG connector of the drawer extension cable to the drawer 1 pin connector. Close the back cover of lower case by 2 screws.

3) Paper near end sensor curcuit

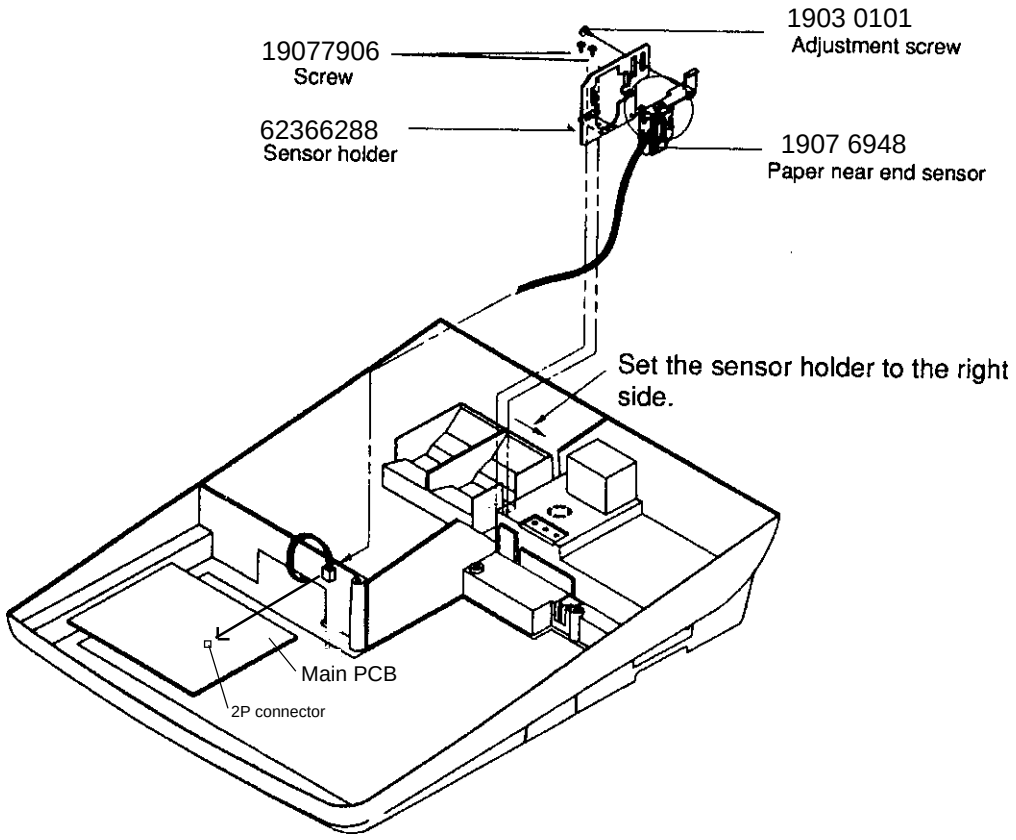
3-1. Prepare the following parts for paper near end sensor circuit. The individual parts are supplied from spare parts sales department same as an other spare parts.

Code No.	Parts Name	Specification	Q'ty
19076948	Paper end sensor	C33-651000	1
19030101	Adjustment screw	C109302051	1
62366288	Sensor holder	E410223B-02	1
19077906	Screw	3 x 8 ZMC-3	2
35401431	Pin assembly 2P	5045-02A	1

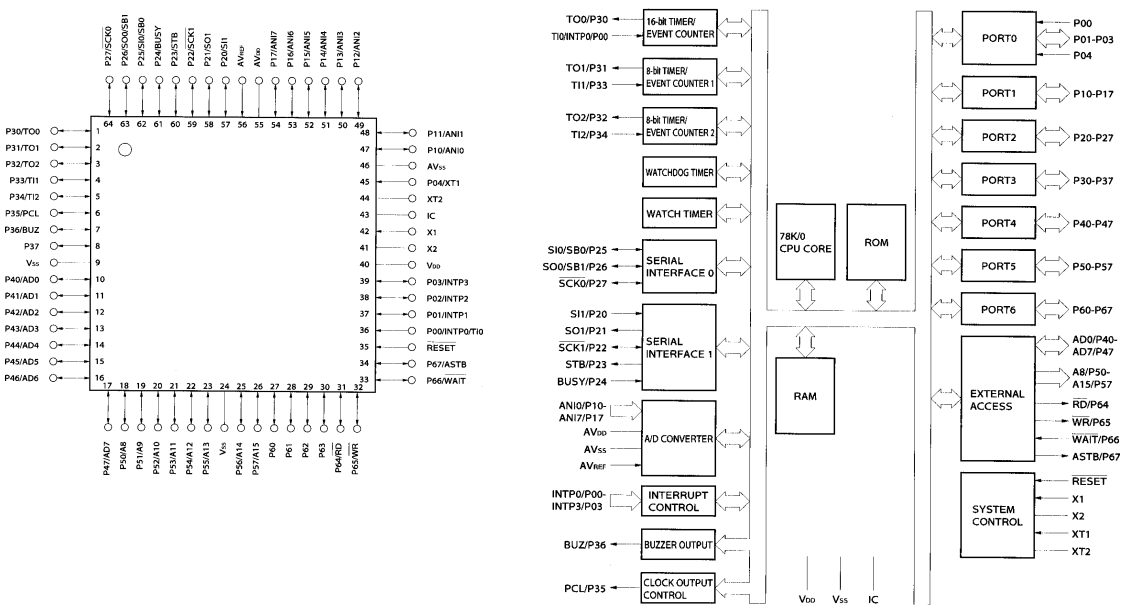
3-2. Mount the pin assembly 2P to the main PCB.



3-3. Fix the paper near end sensor to the lower case by 2 screws and connect the sensor connector to the main PCB.



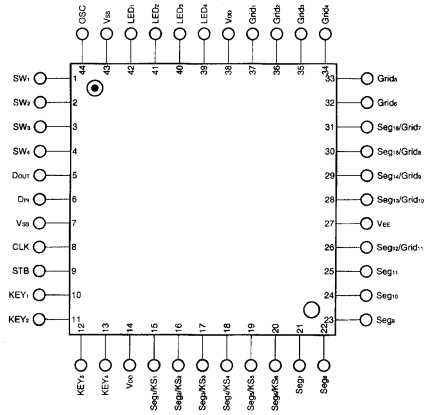
6-14. Display controller uPD78015FGC526-AB8

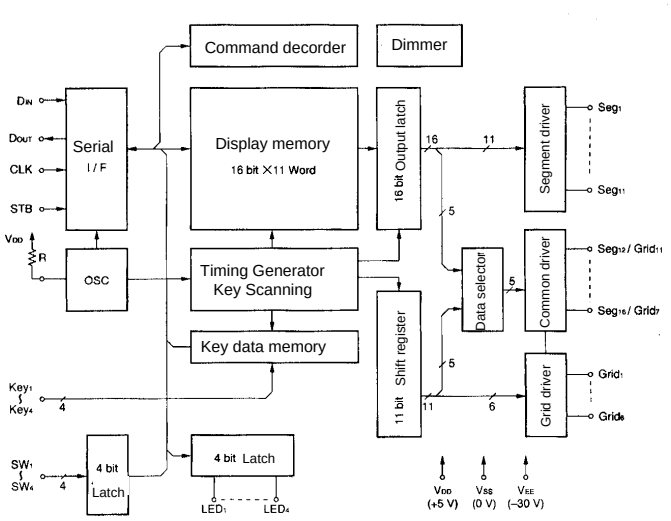


Pin No.	Signal Name	Description	In/Out
1	TO0	BLINK OUT	Out
2	TO1	BK1 SIGNAL	Out
3	TO2	BK2 SIGNAL	Out
4	TI1	SIG	Out
5	TI2	CLKG	Out
6	PCL	BK	Out
7	BUZ	LAT1/LAT2	Out
8	P37	VFD RS	In
9	VSS	GND	
10	AD0	CONNECTED TO GND	In/Out
11	AD1	CONNECTED TO GND	In/Out
12	AD2	CONNECTED TO GND	In/Out
13	AD3	CONNECTED TO GND	In/Out
14	AD4	CONNECTED TO GND	In/Out
15	AD5	CONNECTED TO GND	In/Out
16	AD6	CONNECTED TO GND	In/Out
17	AD7	CONNECTED TO GND	In/Out
18	A8	CONNECTED TO GND	Out
19	A9	CONNECTED TO GND	Out
20	A10	CONNECTED TO GND	Out
21	A11	CONNECTED TO GND	Out
22	A12	CONNECTED TO GND	Out
23	A13	CONNECTED TO GND	Out
24	VSS	GND	
25	A14	CONNECTED TO GND	Out
26	A15	CONNECTED TO GND	Out
27	P60	CONNECTED TO GND	In/Out
28	P61	CONNECTED TO GND	In/Out
29	P62	CONNECTED TO GND	In/Out
30	P63	CONNECTED TO GND	In/Out
31	RD	CONNECTED TO GND	Out
32	WR	CONNECTED TO GND	Out

Pin No.		Description	In/Out
33	WAIT	CONNECTED TO GND	In
34	ASTB	CONNECTED TO GND	Out
35	RESET	VFD RESET SIGNAL	In
36	INTP0/TI0	VFD BK	In
37	INTP1	VFD CE	In
38	INTP2	VFD WR	In
39	INTP3	SOG	In
40	VDD	VCC	
41	X2	CLOCK INPUT	In
42	X1	CLOCK INPUT	In
43	IC	CONNECTED TO GND	
44	XT2	NOT USED	
45	XT1	CONNECTED TO GND	In
46	AVSS	CONNECTED TO GND	
47	ANI0	VFD D0	In
48	ANI1	VFD D1	In
49	ANI2	VFD D2	In
50	ANI3	VFD D3	In
51	ANI4	VFD D4	In
52	ANI5	VFD D5	In
53	ANI6	VFD D6	In
54	ANI7	VFD D7	In
55	AVDD	VDD	
56	AVREF	CONNECTED TO VDD	In
57	SI1	CONNECTED TO GND	In
58	SO1	SI1/SI2	In
59	SCK1	SCLK1/SCLK2	In/Out
60	STB	CHIP ENABLE FOR uPD16312GB-3B4	Out
61	BUSY	VFD BUSY	In
62	SI0/SB0	CONNECTED TO GND	In
63	SO0/SB1	SO SIGNAL TO uPD16312GB-3B4	Out
64	SCK0	SCK SIGNAL FOR uPD16312GB-3B4	In/Out

6-15. Segment display driver uPD16312GB-3B4

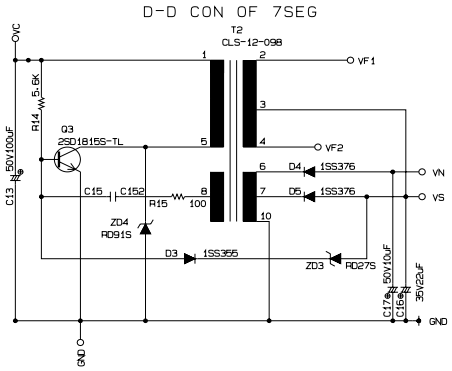




Pin No.	Signal Name	Description	In/Out
1	SW1	CONNECTED TO GND	In
2	SW2	CONNECTED TO GND	In
3	SW3	CONNECTED TO GND	In
4	SW4	CONNECTED TO GND	In
5	DOUT	NOT USED	Out
6	DIN	SO	In
7	VSS	GND	
8	CLK	SCK	In
9	STB	CE	In
10	KEY1	CONNECTED TO GND	In
11	KEY2	CONNECTED TO GND	In
12	KEY3	CONNECTED TO GND	In
13	KEY4	CONNECTED TO GND	In
14	VDD	VCC	
15	SEG1	SEGMENT SIGNAL SA	Out
16	SEG2	SEGMENT SIGNAL SB	Out
17	SEG3	SEGMENT SIGNAL SC	Out
18	SEG4	SEGMENT SIGNAL SD	Out
19	SEG5	SEGMENT SIGNAL SE	Out
20	SEG6	SEGMENT SIGNAL SF	Out
21	SEG7	SEGMENT SIGNAL SDP	Out
22	SEG8	SEGMENT SIGNAL SG	Out

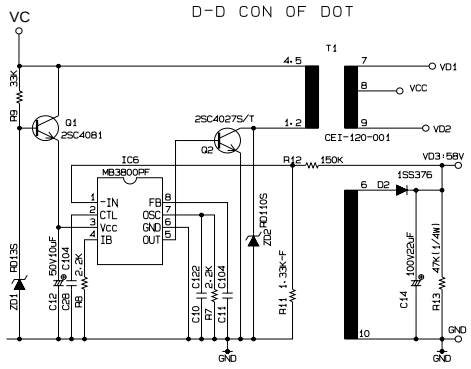
Pin No.	Signal Name	Description	In/Out
23	SEG9	SEGMENT SIGNAL SH	Out
24	SEG10	SEGMENT SIGNAL SCOM	Out
25	SEG11	NOT USED	
26	SEG12	NOT USED	
27	VEE	VN	
28	GRID10	DIGIT SIGNAL SG10	Out
29	GRID9	DIGIT SIGNAL SG9	Out
30	GRID8	DIGIT SIGNAL SG8	Out
31	GRID7	DIGIT SIGNAL SG7	Out
32	GRID6	DIGIT SIGNAL SG6	Out
33	GRID5	DIGIT SIGNAL SG5	Out
34	GRID4	DIGIT SIGNAL SG4	Out
35	GRID3	DIGIT SIGNAL SG3	Out
36	GRID2	DIGIT SIGNAL SG2	Out
37	GRID1	DIGIT SIGNAL SG1	Out
38	VDD	VCC	Out
39	LED4	NOT USED	
40	LED3	NOT USED	
41	LED2	NOT USED	
42	LED1	NOT USED	
43	VSS	GND	
44	OSC	CLOCK SIGNAL TERMINAL	In

6-16. DC/DC converter circuit



There are two DC/DC convertor circuit for display.

For the 7 segment display voltages are made by the DC/DC converter in display PCB E445B-E2. Transistor Q3 is oscillating and zener diode ZD3 feedbacks the output voltage to control the oscilation.



For the dot display voltages are made by the DC/DC converter in display PCB E445B-E2. Transistor Q1,Q2 ,IC6 and DC/DC converter transformer T1.

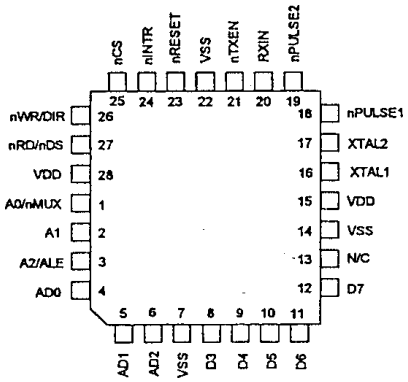
The dot display MN12832E need the following Voltages.

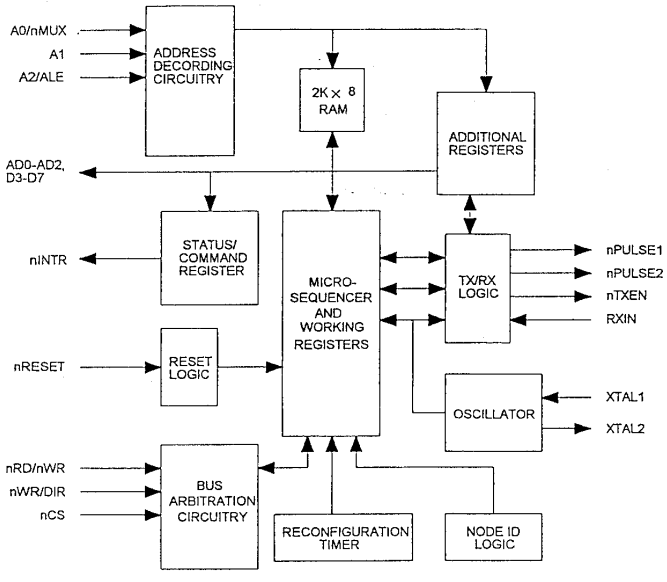
1. Filament Voltage VD1,VD2 = AC4.8V
2. Logic Volatge VCC= DC5V
3. Display Voltage VD3 = DC58V

6-17. ARCNET circuit (I/O PB14)

For the model CE-7000, the ARCNET board I/O PB14 is installed from the factory.
It is possible to connect up to 32 units without scanning system (scanning system up to 4 units) through the ARCNET In-line connection.

1. ARCNET CHIP COM20019ILJP



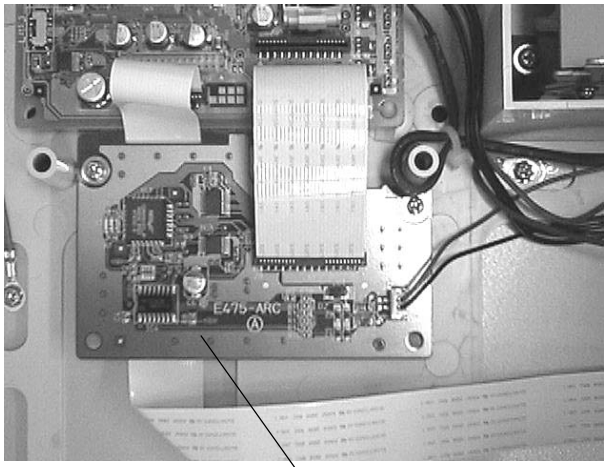


Pin No	Pin Name	Name	In/Out	Status of OFF	Status of ON No Token	Status of ON Token	Description
1 2 3	A0/nMUX A1 A2/ALE	Address 0-2	In	L	L	Pulse	On a non-multiplexed bus, these signals are directly connected to the lower 3 bits of the address bus. on the multiplexed address / data bus, A0/nMUX is tied low, A1 is left open, and A2 is tied to the address latch enable signal of the host. A1is connected to an internal pull-up resistor.
4 5 6 8 9 10 11 12	AD0 AD1 AD2 D3 D4 D5 D6 D7	Data 0-7	In/Out In/Out In/Out In/Out In/Out In/Out In/Out In/Out	L L L L L L L L	Pulse Pulse Pulse Pulse Pulse Pulse Pulse Pulse	Pulse Pulse Pulse Pulse Pulse Pulse Pulse Pulse	Input/Output. On a non-multplexed bus, these signals are used as the lines fo the device. On a multiplexed address/data bus, AD-AD2 act as the address lines (latched by ALE) and as the low data lines for the device. D3-D7 are always used for data only. These signals are connected to internal pull-up resistors.
27	nRD/nDS	nRead/ nData Strobe	In	L	L	Pulse	Read/Data strobe signal input. On a 68xx-like bus, this active low signal is issued by the microcontroller as the data strobe signal to strobe the data onto the bus. On a 80xx-like bus, this is active low signal is issued by the microcontroller to indicate a read operation.
26	nWR/DIR	nWrite/ Direction	In	L	Pulse	Pulse	Input. On a 68xx-like bus, this signal is issued by the microcontroller as the Read/Write signal to determine the direction of the transfre. In this case, a logic "1" selects a read operation, while a logic "0" selects a write operation. In this case, data is actually strobed by the DS signal. On a 80xx-like bus, this active low signal is issued by the microcontroller to indicate a write operation. In this case a logic "0" on this pin, when the COM20019 is accessed, enables data from the data bus to be written to the device.
23	nRESET	nReset IN	In	L	H	H	Input. This active low signal issued by the micro-controller executes a hard- ware reset. It is used to active the internal reset circuitry within the COM20019.
24	nINTR	nInterrupt	Out	L	H	Pulse	Interrupt output. This active low signal is generated by the COM20019 when an enabled interrupt condition occurs. INTR returns to its intactive state when the interrupt status condition or the corresponding interrupt mask bit is reset.
25	nCS	nChip Select	In	L	H	Pulse	Chip select input. This active low signal issued by the microcontroller selects the COM20019 for an access.
18 19	nPULSE1 nPULSE2	nPulse1 nPulse2	Out Out	L L	H L	Pulse L	Output. When the device is in backplane mode, the nPULSE1 signal driver is programmable(push/pull High= -2mA, Low= 4mA or open drain). nPULSE1 is connected to a week internal pull-up resistor in backplane mode. nPULSE2 becomes double size of data rate syncronized clock output. When nPULSE2 is N/C, nTXEN is active low. But, power up time, when nPULSE" is connected to GND, the nTXEN terminal becomes active high.

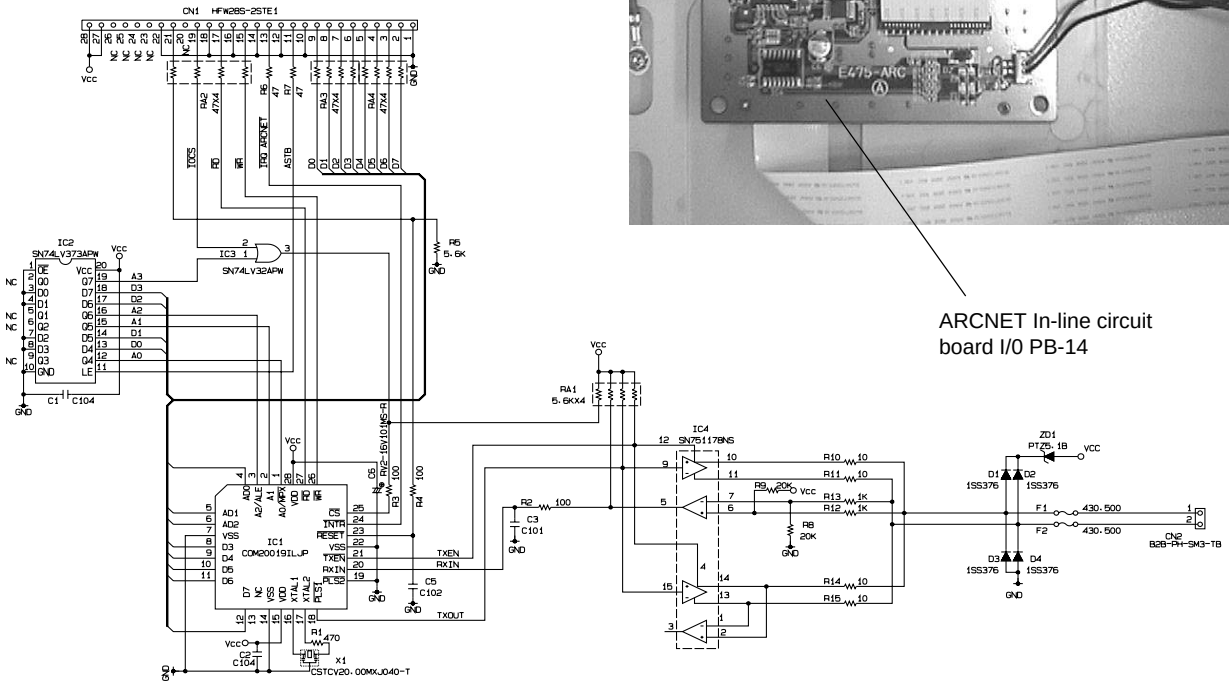
Pin No	Pin Name	Name	In/Out	Status of OFF	Status of ON No Token	Status of ON Token	Description
20	RXIN	Receive IN	In	L	H	Pulse	Receive input. This signal carries the receive data information from the line receiver circuitry to the COM20019.
21	nTXEN	nTransmit Enable	Out	L	L	Pulse	Transmit Enable output. This signal used in backplane mode to enable the line driver for transmission. The polarity of the signal is programmable by grounding the nPULSE2 pin. Normally, connect nTXEN terminal of HYC2488S or DE terminal of RS485 driver.
16 17	XTAL1 XTAL2	Crystal Oscillator	In In	L L	Pulse Pulse	Pulse Pulse	An external crystal should be connected to these pin. If an external TTL clock is used instead of C-MOS level, it must be connected to XTAL1 with 390 ohms pull-up resistor, and XTAL2 should be left floating.
15 28	VDD VDD	Power supply	Power Power	GND GND	(+5V) (+5V)	(+5V) (+5V)	Power supply +5V
7 14 22	VSS VSS VSS	Powersupply	Power Power Power	GND GND GND	GND GND GND	GND GND GND	Power supply GND

2. ARCNET In-line circuit

The In-line circuit is as follows:
CE-7000 has the ARCNET In-line board I/0 PB-14.



ARCNET In-line circuit board I/0 PB-14

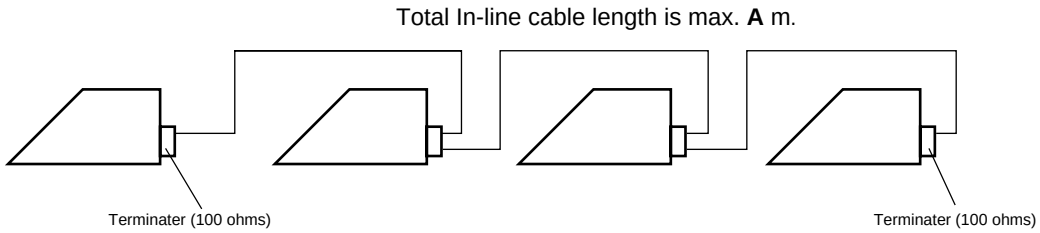


3. In-line connection

1) System connection diagram

The maximum In-line (ARCNET) cable length and maximum connection unit will be varied by the In-line communication speed as shown below:

NOTE: The terminater 100 ohms is necessary to mount at the end of In-line cable .



In line communication speed (Baud rate)	Maximum connection unit	Maximum cable length **A** (m)
312.5 K bps 156.25 K bps	20 units 32 units	430 m 890 m

2) In-line cable and connector

CASIO TECHNO will supply the In-line cable, connector and terminater parts by the following parts code.

In line cable

Code No.	Parts name	Specification
1904 4023	In-line cable	IPEV-SLA0.5x1P

In line connector

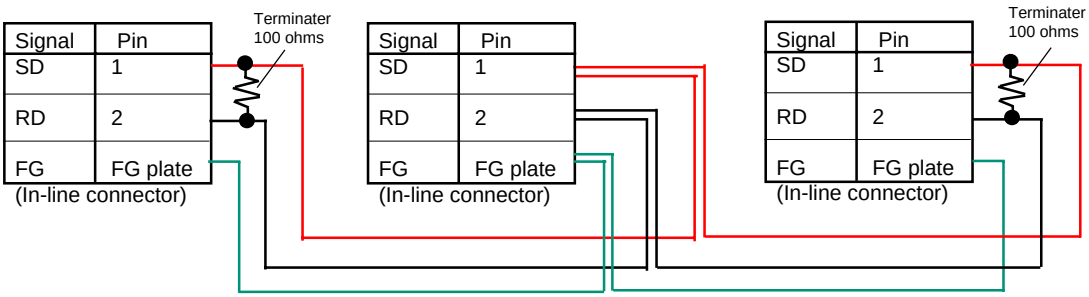
Code No.	Parts name	Specification
3500 5820	In-line connector kit	XLP-KIT-1

Terminater

Code No.	Parts name	Specification
2600 2516	Carbon film resistor	R-25-100-J

3) In-line cable connection

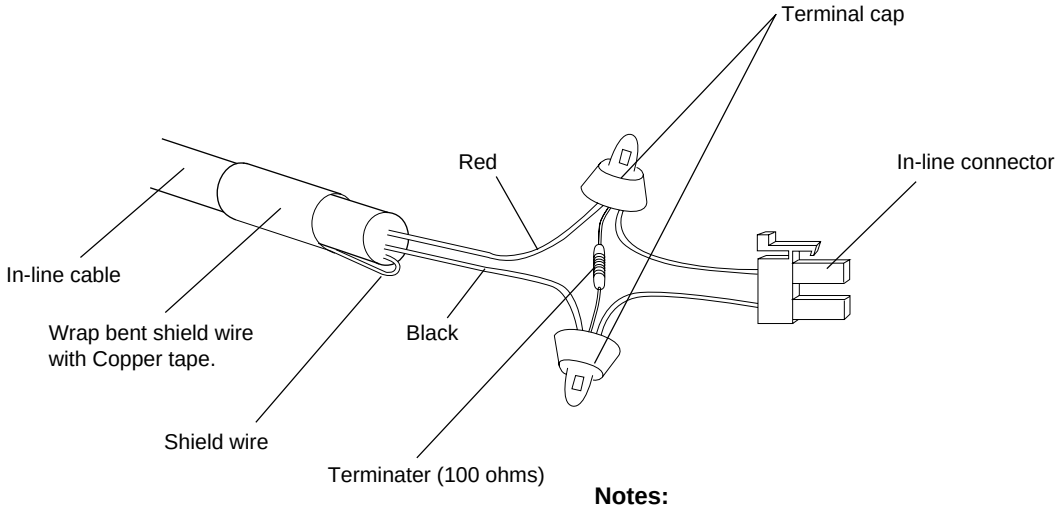
In-line cable connection diagram is shown below:
Mount the terminater 100 ohms at the both end of In-line cable.



4) To connect the In-line cable

Connect the In-line cable and connector as shown below:

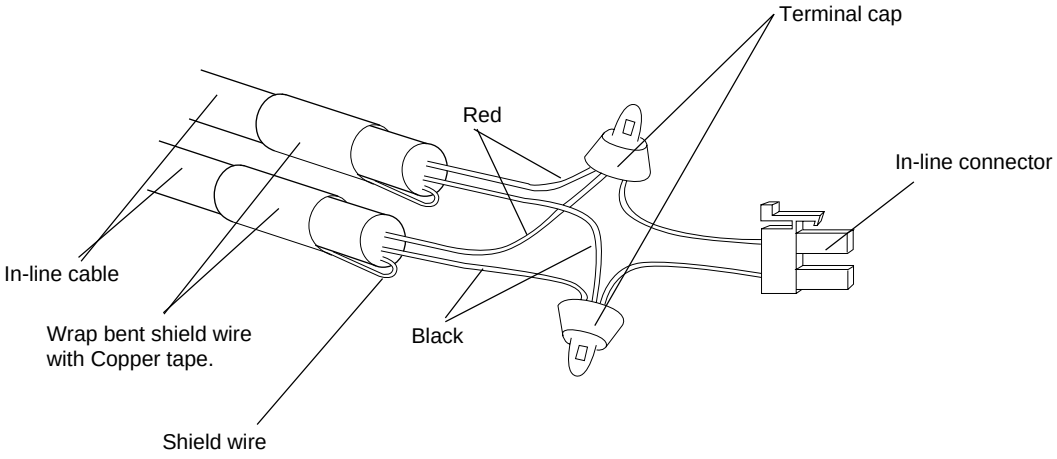
Connector at the enc of In-line cable



Notes:

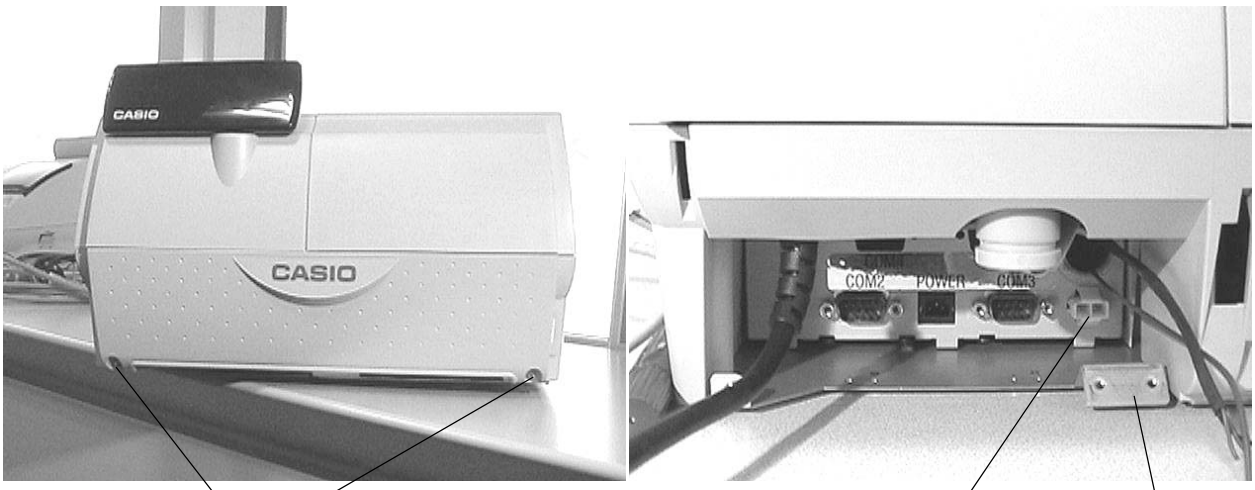
1. **Use crimp tool for connecting terminal caps.**
2. **If crimp tool is not available, connect the wires with solder instead of terminal cap. After the soldering, insulate the wires with vinyl tape.**

Connector at the enc of In-line cable



Notes:

1. **Use crimp tool for connecting terminal caps.**
2. **If crimp tool is not available, connect the wires with solder instead of terminal cap. After the soldering, insulate the wires with vinyl tape.**

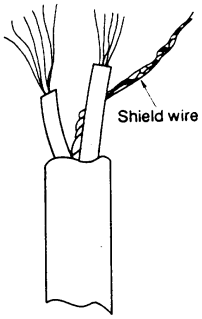


To connect the In-line cable, release the 2 screws from the back cover.
Then, remove the Back cover. And, put the In-line connector to the ARCNET In-line port.
Do not foget to connect the shield wire (copper tape part) to the FG plate by the cable supporter with screw.

5) Specification of the In-line cable

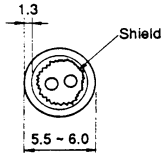
1. Structure

Conductor	Material:	Tin plated mild copper twist
	Cross section area:	0.5mm^2
	Construction:	20 pieces/0.18 mm
	O.D.	0.95 mm
Insulation	Material:	Polyethylene
	Thickness	0.3 mm
Sheath	Material:	PVC
	Thickness	1.3 mm
Finished O.D.:		6.0 ~6.5 mm
Approx. weight:		55 kg/km



2. Properties (20°C)

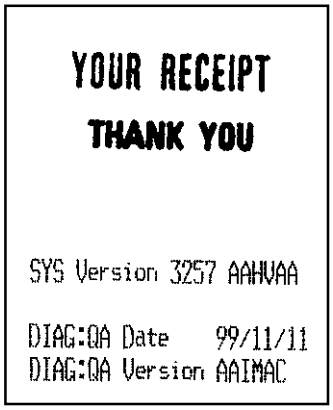
Maximum conductor resistance	38.7 Ω/km
Minimum insulation resistance	10 kMΩ•km
Electric strength	AC350 V/1 minute
Electrostatic capacity (Standard)	75 nF/km



7. DIAGNOSTIC OPERATION

7-1. To start the diagnostic program

1. Plug the power cord into an AC outlet.
2. Set the mode switch to "OFF" position.
3. While pressing the "Jounal feed " button, turn the mode switch to "PRG" position.
4. Release the "Journal feed" button.
5. Input "99990000" and press "ST" ("#2" key).
6. Diagnostic program is executed.



7-2. Check item

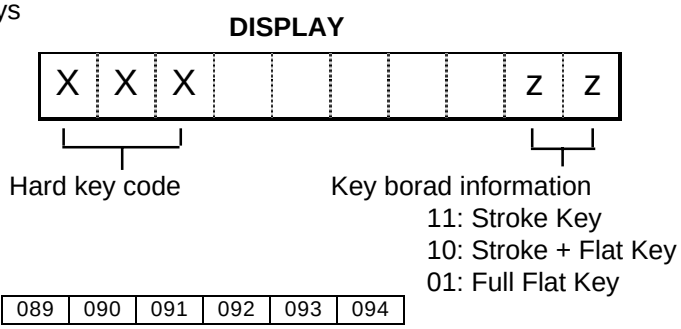
The following test can be checked in the diagnostic test.

1. Key code test
2. Switch status test
3. Individul function test

7-3. Operation of each test

1. Key code test

When pressing a key, the machine displays the following key code.



HARD KEY CODE TABLE

089	090	091	092	093	094
095	096	097	098	099	100

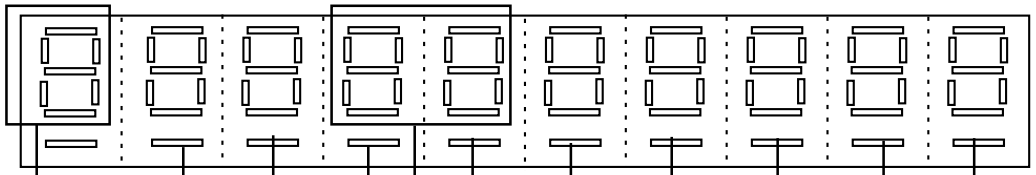
RF	**JF**	077	070	068	066	066	060	054	048	042	036	030	024	018
087	082	076	069	067	065	065	059	053	047	041	035	029	023	017
086	081	075	**7**	**8**	**9**	064	058	052	046	040	034	028	022	015
085	080	074	**4**	**5**	**6**	063	057	051	045	039	033	027	014	016
084	079	073	**1**	**2**	**3**	062	056	050	044	038	032	026	020	021
083	078	072	**0**	11	12	061	055	049	043	037	031	025	019	013

Note: "014" button is work for "#2" key. "013" button is work for "#1" key.

7-4. Switch status test

Press "C" button or changing the switch condition,the switch status is appeared on the transaction place of the display. The clerk key switch condition is shown at the 6 and 7 digit number's place of display. For the clerk button model, the pressed LED will light on.

[DISPLAY]



Allways off

Allways off

Allways off
NOTE: Journal TAIWAN sensor
Off: No mark position
On: Mark position

Allways off
NOTE: Receipt TAIWAN sensor
Off: No mark position
On: Mark position

Allways off
NOTE: Validation sensor (Not used)
Off: Normal
On: Validation paper in

ROM cassette condition
Off : Not mounted
On : Mounted

Clerk key condition (Germany)
00 : Not inserted key
01 to 16 : Clerk key number

Paper near end sensor
Off : Normal (Paper end switch OFF)
On : Near end (Paper and switch ON)

Drawer sensor
Off : Drawer close
On : Drawer open

Menu switch conditon (Only for TK6000 and TK7000)
0 : Switchs are both off condition.
1 : Menu 1
2 : Menu 2

Mode switch status
0 : No connetion
1 : PGM
2 : RF
3 : REG1
4 : REG2
5 : X
6 : Z
7 : XZ2
8 : OFF

7-5. Individual function test

1) Series test

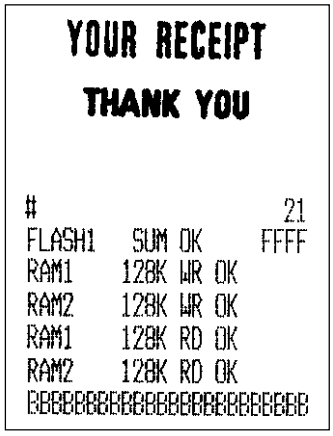
This test will perform the following tests in series.

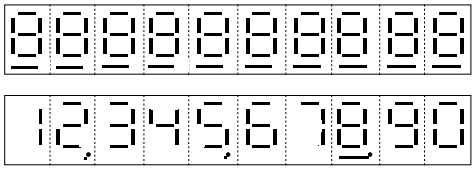
1. Display test (All dot and segment trun on.)
2. RAM read after write test (one time)
3. Print test (one time)
4. Time display test
5. Drawer open test
6. Receipt issue test
7. Display test (1234567890 display)

Operation : [X] [1] [#2] Key

Function X : 0= Automatic RAM capacity detection
1= RAM1 (128K) test only
2= RAM1,2 (128K) test
4= RAM1,2,3 (RAM3 is 512K.) test
6= RAM1,2,3,4 (RAM3,4 are 512K.) test

[PRINT] **[DISPLAY]**





NOTE : In case of error, the following error message will be printed.

RAM1 128K WR ERR!! 00 000000 ----------When the write error is happened.
Error Bank and Address

RAM1 128K RD ERR!! 00 000000 ----------When the verified data error is happened.

FLASH SUM ERR!! 1234 ----------Check sum of Flash1 is not "FFFF".
Caliculated check sum

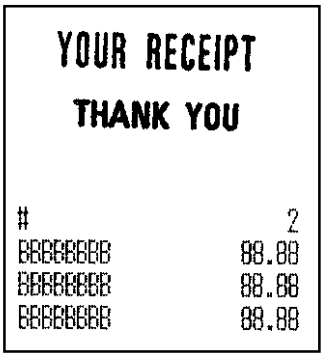
2) Print aging test (R/J printer)

This test will check the R/J printer continuously until pressing some key button or turn off the mode switch.

Operation : [n1] [Y] [X] [2] [#2] Key

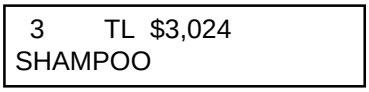
X: 0= Print 45 times test pattern without paper cut in a minute.
1= Print 15 times test pattern with paper cut in a minute.
Y: 0= Normal print
1= Continuously print
n1: 0= Display test pattern
1= All dots and segment will light on.

[PRINT]



[DISPLAY]

Dot display (Test pattern)



Segment display (Test pattern)

3) Print aging test (Slip printer)

This test will check the slip printer continuously until pressing some key button or turn off the mode switch.

Operation : [n3] [n2] [n1] [Y] [1] [2] [#2] Key

Y: 0= Normal print
1= Continuously print
n1: 0= Display test pattern
1= All dots and segment will light on.
n2: 0= Print R/J printer
1= Non print R/J printer
n3: 0= Port selection Com2
1= Port selection Com3

4) Print aging test (Kitchen printer)

When the machine is opened for the kitchen printer port with connection of the kitchen printer, the kitchen printer will print by the same command of R/J printer aging test.

[Open command]

Operation : [s] [b] [1] [9] [2] [0] [7] #2 Key

b: 0= 19,200bps 1= 9,600bps 2= 4,800bps 3= 2,400bps
s: 0= Com1 1= Com2 2= Com3

[Close command]

Operation : [2] [9] [2] [0] [7] #2 Key

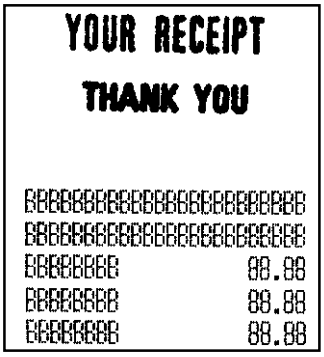
5) Print test (R/J printer)

This test will check the R/J printer. To stop the continuous printing, press some key button or turn off the mode switch.

Operation : [n1] [n] [0] [X] [0] #2 Key

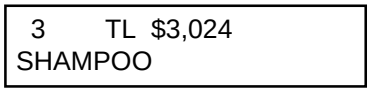
X: 0= One time print
1= Continuously print
n: 0= Display test pattern
1= All dots and segment will light on.
n1: 0= Print test pattern
1= Print all "B"

[PRINT]



[DISPLAY]

Dot display (Test pattern)



Segment display (Test pattern)

6) Print aging test (Slip printer)

This test will check the slip printer. To stop the continuous printing, press some key button or turn off the mode switch.

Operation : [n2] [n1] [n] [0] [X] [0] [#2] Key

X: 0= Normal print
1= Print slip printer
n: 0= Display test pattern
1= All dots and segment will light on.
n1: 0= 35 characters print
1= Non print R/J printer
2= 42 characters print
n2: 0= Port selection Com2
1= Port selection Com3

7) Print aging test (Kitchen printer)

When the machine is opened for the kitchen printer port with connection of the kitchen printer, the kitchen printer will print by the same command of R/J printer test.
[Open command]

Operation : [s] [b] [1] [9] [2] [0] [7] #2 Key

b: 0= 19,200bps 1= 9,600bps 2= 4,800bps 3= 2,400bps
s: 0= Com1 1= Com2 2= Com3

[Close command]

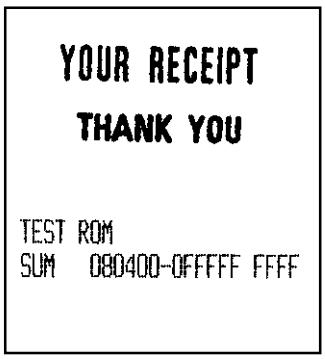
Operation : [2] [9] [2] [0] [7] #2 Key

8) Flash1 ROM check

This test will check the Flash 1 ROM. This test will print the version name and check sum on the receipt as shown in sample print. When using several bank, the each version name and check sum will be printed after this sample data.

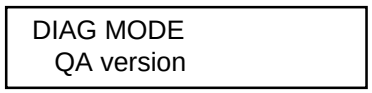
Operation : [9] [0] [0] [#2] Key

[PRINT]



[DISPLAY]

Dot display



Segment display

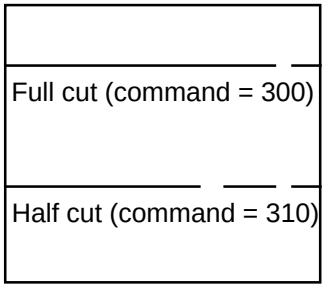
9) Printer auto paper cut check

This test will check the auto paper cut function.

Operation : [3] [n] [0] [#2] Key

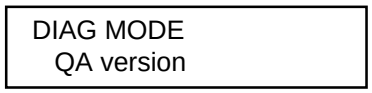
n: 0= Full cut (one line paper feed)
1= Half cut (no paper feed)

[PRINT]



[DISPLAY]

Dot display



Segment display

10) Drawer open check

This test will check the drawer open function.

Operation : [d3] [d2] [d1] [8] [n] [0] #2 Key

n: 0= Open drawer without print.
2= Open drawer with print 10lines "B" printing.

NOTE1: d3,d2,d1 are option drawer test. When input the following number, the option drawer will be opened.
2= drawer2
3= drawer3
4= drawer4

NOTE2: Command 800 is open drawer1.

11) Flash2 ROM and Flash pack check

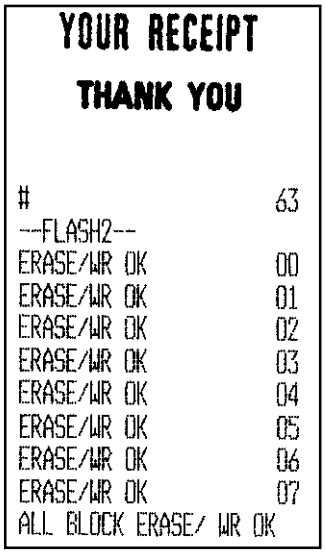
This test will check the Flash 2 ROM and Flash pack. This test will perform the erase, write, and verify check.

Operation : [n1] [n2] [s] [n] [X] [3] [#2] Key

s: 0= Select Flash2
1= Select Flash pack
X: 5= Test by one block (64 bytes)
Select the block by the Number n (from 0 to 9).
When the block is over 9, use the number n1 and n2.
6= Test the all block. After test, the all block data is cleared.
In this case, number n will have the following function select.
n: 1= Repeat check (After finished all block check, start the check from 0 block again. To stop this check, set mode switch to off position.)
2= Read only check (The erase and write test are not performed in the each block. Therefore, perform the erase and write test "command 263 #2" before this test.)
4= The erase and write test only. (Non data clear after test)
6= Blank check (check 0FFH)

NOTE1: During this test, the LED of receipt switch will blink. In the repeat test, the machine will display the repeat count number on the segment display. When the error is happened, the machine will issue an error receipt.
NOTE2: The erase, write and verify check will perform the following procedure. And, the last step, the all block data will be cleared.
1) The designated block (64 Kbytes) will be erased.
(The data will be cleared after the block protect released.)
2) The test data will be stored in the block area (64 Kbytes).
The test data is made by the test address/bank.
Test data (8bits) = Block No. + address(Middle 8 bits) + address(Lower 8 bits)
3) Verify the designated block (64 Kbytes).

[PRINT]



Error receipt

ERASE ERR!!	000000	00
WR ERR!!	000000	00
RD ERR!!	000000	43
no PACK ERR!!	000000	01
WR PROTECT!!	040000	FF

[DISPLAY]

Dot display

Segment display

Error address
The beginning address of Flash chip is "000000".

Error code
Error code is made by Flash controller device.

12) Flash ROM and Flash pack device information check

This test will check the Flash ROM and Flash pack device infromation .
Thie device signature code (Maker code, device code) and write protect information will be printed on the receipt.

Operation : [s] [0] [0] [3] [#2] Key

s: 0= Select Flash2
1= Select Flash pack
2= Select Flash1

[PRINT]

YOUR RECEIPT

THANK YOU

#	0003
--FLASH2--	
DEVICE ID	89A7
MASTER LOCK ID	00
BLOCK LOCK ID	00 00
BLOCK LOCK ID	01 00
BLOCK LOCK ID	02 00
BLOCK LOCK ID	03 00
BLOCK LOCK ID	04 00
BLOCK LOCK ID	05 00
BLOCK LOCK ID	06 00
BLOCK LOCK ID	07 00

[DISPLAY]

Dot display

DEVICE ID
89A7

Segment display

Flash ROM signature code
89A7 = LH28F004SCT
89A6 = LH28F008SCT
89AA = LH28F016SCT

MASTER LOCK BIT
Allways "00"

EACH BLOCK LOCK BIT
00 = Non protection
01 = Protection

13) Flash2 ROM and Flash pack read only check

This test will check the read only check for Flash 2 ROM and Flash pack.
Perform the Flash memory check (command "n53 and #2"), before start of this operation.

Operation : [s] [0] [0] [4] [#2] Key

s: 0= Select Flash2
1= Select Flash pack

[PRINT]

YOUR RECEIPT

THANK YOU

#	0004
--FLASH2--	
RD OK	01

[DISPLAY]

Dot display

RD OK
01

Segment display

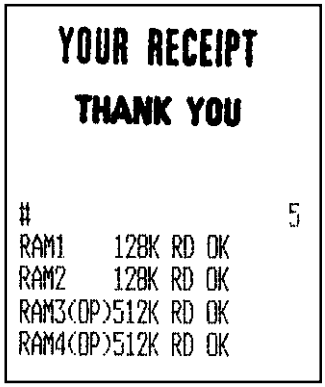
14) RAM read only check

This test will check the read only check for RAM.
Perform the RAM check (EX: command "1 and #2 "), before start of this operation.

Operation : [X] [5] [#2] Key

X: 0= One time check.
1= Continuous check. To stop the test, set the mode switch to OFF.
NOTE: During the RAM test, the Receipt switch LED is blinking.

[PRINT]



[DISPLAY]

Dot display

Segment display

15) RAM read write check

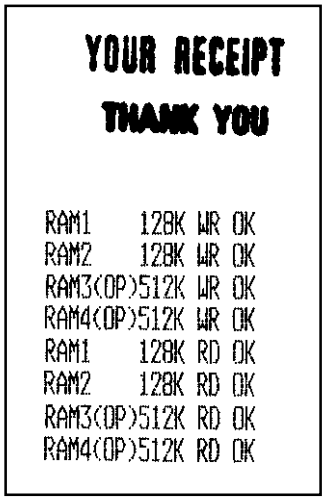
This test will check the read write check for RAM.

Operation : [n] [4] [X] [0] [#2] Key

X: 0= Automatic RAM capacity detection
1= RAM1 (128K) test only
2= RAM2 (128K) test only
4= RAM3 (512K) test only
6= RAM4 (512K) test only

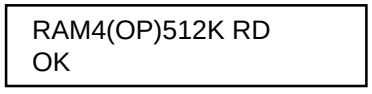
NOTE: RAM1 is always checked even if selected other RAM number.

[PRINT]



[DISPLAY]

Dot display



Segment display

16) RS232 port check

This test will check the RS232 port. Connect the loop back connector before operate this check.

Operation : [X] [2] [m] [7] [#2] Key

m: 0= One time loop check
1= Loop check continuously
2= One time loop check (Ignore the CD,CI signals. Only COM1 port)
3= Loop check continuously (Ignore the CD,CI signals. Only COM1 port)

X: 0= COM1
1= COM2
2= COM3
3= IN-LINE port

Test details

1) Check of the control shignals (CTS,DSR,RTS,DTR,CD,CI) Low/High level.
2) Sending data (0A5h) from Txd line and receiving data from Rxd line.

[PRINT]

```
YOUR RECEIPT
THANK YOU

#                    0207
DTR1=1 --> DSR1=1    OK
RTS1=1 --> CTS1=1    OK
DTR1=1 -->  CD1=1    OK
DTR1=1 -->  CI1=1    OK
DTR1=0 --> DSR1=0    OK
RTS1=0 --> CTS1=0    OK
DTR1=0 -->  CD1=0    OK
DTR1=0 -->  CI1=0    OK
COM1 RECEIVE OK       55
```

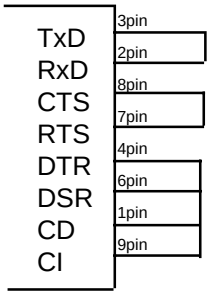
[DISPLAY]

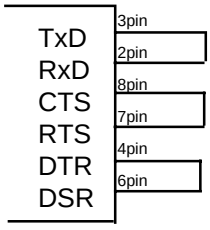
Dot display

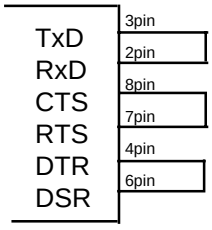
```
COM1 RECEIVE OK
      55
```

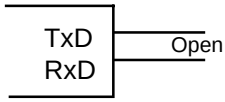
Segment display

LOOP BACK CONNECTOR (D-SUB9pin Female)









In-line loop back is not necessary.

NOTE1: Prepare the 2 type of loop back connector for RS232 test. Because, the COM2 has the power Vcc (+5V) at 9pin. Therefore, When connect COM1 port loop back connector to the COM2, the error report will be issued from the machine.

NOTE2: Error code is as follows:

01= Framing error 02= Over run error 04= Parity error
40= Data error (Not 55) 80=Time out error

17) Print check

This test will check the print test.

Operation : [s] [0] [0] [r] [8] [#2] Key

r: 0= One time check
1= Continuously check (NOTE1)
s: 0= Receipt/Journal print mutually
1= Receipt print only
2= Journal print only

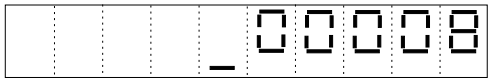
NOTE1: To stop this test, press any key or set the mode switch to OFF position.

[PRINT]

[DISPLAY]

Dot display

Segment display



18) All charactor print check

This test will print the all charactors of the controller.

Operation : [h] [h] [i] [i] [0] [s] [0] [1] [r] [8] [#2] Key

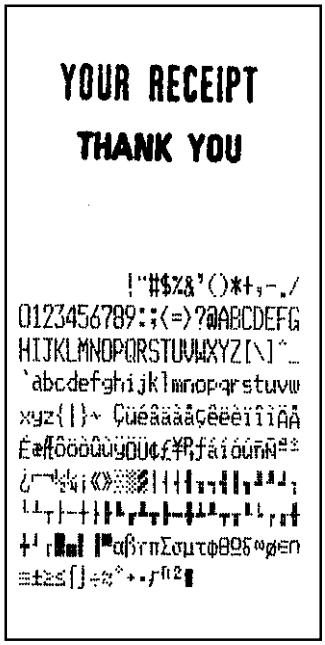
r: 0= Print without code (24 charactors/line)
2= Print with code (16 charactors/line)
4= Print and display without code (24 charactors/line)
6= Print and display with code (16charactors/line)
s: 0= Receipt/Journal print mutually
1= Receipt print only
2= Journal print only

hh: Font selection (High code)
00= USA standard
02= Multilingual
03= Portuguese
04= Canadian-French
05= Nordic
19= Euro+Multilingual
51= Czecho/Poland
52= Hebrew
53= Greece
54= Russia
55= Latvia/Lithuania
56= Arabia
99= User option

ii: Font selection (Low code)
00= USA
01= France
02= Germany
03= England
04= Denmark I
05= Sweden
06= Italia
07= Spain
09= Norway
10= Denmark II
51= Czecho/Poland
52= Hebrew
53= Greece
54= Russia
55= Latvia/Lithuania
56= Arabia
99= User option

NOTE: When use the command print and display, press #1 key (Cash AMT tender key) to display and print the next line. To stop this test, press any key or set the mode switch to OFF position.

[PRINT]

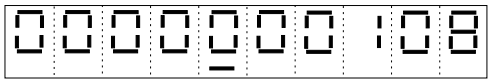


[DISPLAY]

Dot display

DIAG MODE
QA version

Segment display



19) All charactor display check

This test will display the all charactors of the controller.

Operation : | X | n | n | 2 | 7 | 0 | 8 | #2 | Key

nn: 00= Display the all charactors without wait time.
01= Display the all charactors with 40 msec. wait time.
When use the some number, the wait time will be expand to 40 msec. X number.
99= Display the all charactors. To display the next line, press #1 key.
When press 1 to 9 key, change the diplay to wait time operation.

X: 0= Double size charactor
1= Normal size charactor

[PRINT]

Non print

[DISPLAY]

Display the all charactors to the dot display step by step.

20) Dot display check

This test will display the some dot test pattern.

Operation : [n] [z] [y] [y] [6] [7] [0] [8] [#2] Key

z: 0= Pattern selection
1= Pattern selection
2= Pattern selection
3= Pattern selection

n: n= After n dot lines, reverse the dot condition.
0= After 16 dot lines, reverse the dot condition.

yy:00= Change the test pattern each about 1 sec.
01= Change the test pattern each 160 msec.
09= Change the test pattern each 9 X 160 msec.

NOTE: To stop this test, press any key or set the mode switch to OFF position.

[PRINT]

When finish the test, issue receipt.

[DISPLAY]

Display the test pattern to the display step by step.

1) Dot display and segment dislay will be turned off.
2) All display will be turned on.
3) Display the test pattern which is selected by test code. And , display "12.345.678.90" to segment display.
4) Reverse display of dot test pattern. And, display "09.876.543.21" to segment display.

21) Time and date display test

The machine will display the time .
By #2 Key, the display will change the date and time.

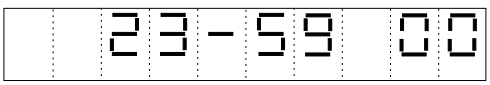
Opeartion : [9] [#2] Key

[PRINT]

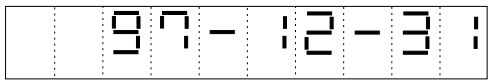
[DISPLAY]

Dot display

Segment display



Press #2 key



22) Date time set test

The machine will set the time or the date.

Opeartion : [n1] [n2] [n3] [n4] [n5] [n6] [X] [9] [#2] Key

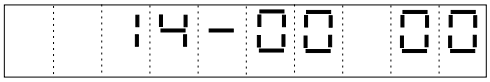
X: 0= Time set (n1 n2: Time, n3 n4: Minute, n5 n6: Second)
1= Date set (n1 n2: Year, N3 n4: Month, n5 n6: Day)

[PRINT]

[DISPLAY]

Dot display

Segment display



23) IPL flash pack down load test

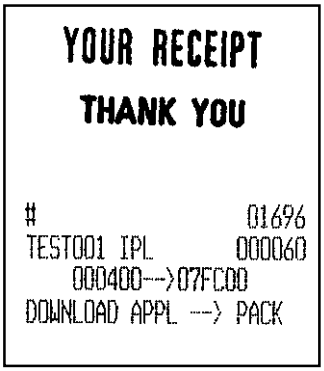
This operation will store the application software in the flash 1 to the flash pack by IPL format. The flash pack is cleared the all data inside it. And the flash pach format partition is made onlu one area and it is made only one FCB file of IPL.

Opeartion : [b] [1] [6] [9] [6] [#2] Key

b: 0= Flash 1 (BANK 0) application only
n (1 to 4)= Down load the each file in the Bank 1 to n of the flash 1 to make the each bank area for the application software.

NOTE: To make the additional down load operation, use the always 16 Mbits flash pack.

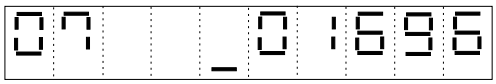
[PRINT]



[DISPLAY]

Dot display

Segment display



24) Scanner test

This operation will test the scanner operation.

Opeartion : | X | | n | | 3 | | 0 | | 7 | | #2 | Key

n: 0= Scanner read test
Scanner read some bar code by this command.
#1 key will change the LED light on/off control.

1= Compare the read data test. (Compare with code "49491004".)

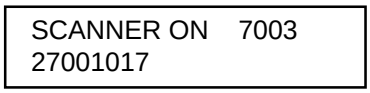
X: 0= 2,400 bps and even parity
1= 9,600 bps and even parity
2= 2,400 bps and odd parity
3= 9,600 bps and odd parity

NOTE: To stop this opeartion, press any or trun off the mode key switch.

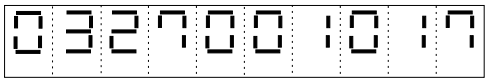
[PRINT]

[DISPLAY]

Dot display

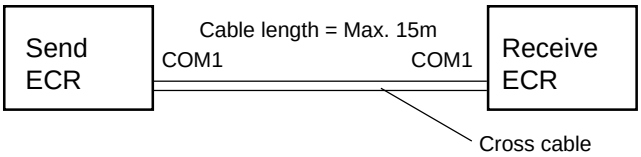


Segment display



25) COM1 online test

This operation will test the COM1 online function. This test need the reception machine as shown below;



Wiring diagram for the connection cable

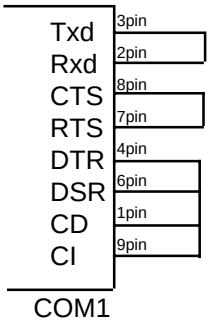
Signal	Pin
CD	1
RxD	2
TxD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
CI	9

COM1

Signal	Pin
CD	1
RxD	2
TxD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
CI	9

COM1

Loop back connector



Opeartion : [z] [z] [b] [m] [7] [2] [X] [7] [#2] Key

b: Baud rate selection
0= 19,200 bps 1= 9,600 bps 2= 4,800bps 3= 2,400bps 4= 38,400 bps

m: Test Mode selection
0= Self loop test 1= Reception mode 2= Send mode

ZZ: Time out number (seconds) input between data
(default is 3 seconds. Input ZZ, ZZ seconds will be the time of time out.)

X: 0= Normally select 0.
1= When error is happened, print error receipt before retry operation.

Test procedure

1) Operate the send machine first. The send machine will wait the "C" signal (send request) reception from the reception machine.
The send machine will wait the send request signal about 30 seconds. When it is over 30 seconds, the time out error will be printed on the receipt.
2) Operate the reception machine. Then, the both machines are communicated each others. This time first block data wait time is 5 seconds. The total resend request time is 5 time.
3) During communication waiting time, the display will show the "-" brinking on the most left side digit of segment display. When the data is OK, the reception/transmission packet number will be displayed on the segment display.

NOTE1: To stop this opeartion, press any or trun off the mode key switch.

NOTE2: The send packet data format is as follows:
(Communication format is 8 bits, even parity, stop bit= 1bit fixed.)

STX 03h	Block counter 2 bytes	Data (55h X 1,020 pcs.)	LRC

Total 1,024 bytes

[PRINT]

Normal End

YOUR RECEIPT
THANK YOU
7207

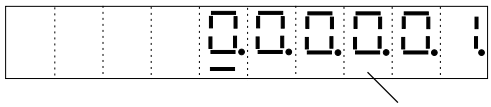
Error End (Time out error)

YOUR RECEIPT
THANK YOU
7207
INLINE TIMEOUT 80 0001

[DISPLAY]

Dot display

Segment display

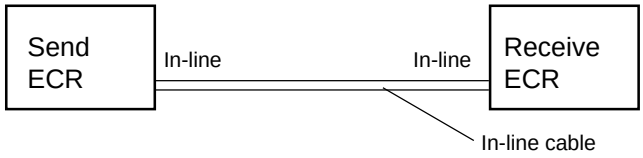


Count data block

E : Error status
(01 : Framing error)
(02 : Over run error)
(04 : Parity error)
(40: Transmit/ Receive data error/ Data is not 55.)
(80 : Time out error)

26) In-line (ARCNET) test

This operation will test the In-line (ARCNET) function. This test need the reception machine as shown below;



Wiring diagram for the connection cable

Signal	Pin
SD	1
RD	2

In-line port

Signal	Pin
SD	1
RD	2

In-line port

Opeartion : | d | d | s | s | b | m | 6 | 2 | X | 7 | #2 | Key

b: Baud rate selection
0= 156 K bps 1= 312 K bps

m: Test Mode selection
1= Reception mode 1 2= Send mode 1
3= Reception mode 2 4= Send mode 2

dd: The other machine ID number ss: The machine ID number

X: 0= Normally select 0.
1= When error is happened, print error receipt before retry operation.

Test procedure

1) Operate the reception machine first.
2) Operate the send machine. Then, the both machines are communicated each others.
3) During communication waiting time, the display will show the "-" blinking on the most left side digit of segment display. When the data is OK, the reception/transmission packet number will be displayed on the segment display.

NOTE1: To stop this opeartion, press any key or trun off the mode key switch.

NOTE2: The send packet data format is as follows:

SID	DID	LEN	Data (00h to FFh,00h,01h to FBh)	LRC

Total 508 bytes

NOTE3: In case the data is received correctly,
1) MODE 1
Reception mode 1: Check the receive data. Then, send the reverse receive data (FBh to 01h,00h, FFh to 00h) back to the send machine.
Send mode 1 : Then, after checking the reverse data, send the test data again.

This action will continue until making the stop operation.

2) MODE 2
Reception mode 2: Check the receive data only.
Send mode 2 : Send the test data each one second continuously.

This action will continue until making the stop operation.

RETRY OPERATION

1) Reception side: (Reception mode 1 is selected.)
Until 7 times continuous error, retry the reception.
Over 8 times continuous error, issue the error receipt.
2) Send side : (Send mode 1 is selected.)
If there are no answer from reception machine, the machine will wait after 3 seconds, retry 7 times send operation.
Over 8 times error, issue the error receipt.

[PRINT]

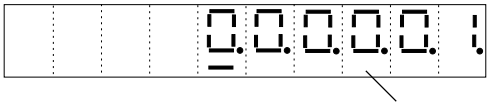
Normal End

Error End (Time out error)

[DISPLAY]

Dot display

Segment display



Error List

ARCNET BLK ERR	10 0001	------	Block No. is not same No. between send and reception.
ARCNET DATA ERR	20 0001	------	Data is not same between send and reception.
ARCNET LENG ERR	40 0001	------	Data Length is not same between sand and reception.
ARCNET TIMEOUT	80 0001	------	Time out error during communication time or starting time.
ARCNET OPEN ERR	xx 0001	------	Failuer of ARCNET initialization.

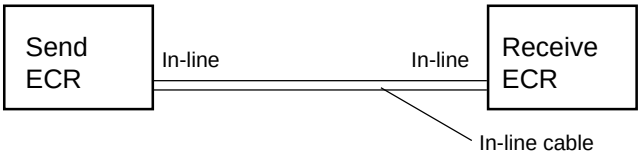
Error code

Error conter

xx: 01= Chip error, register data is not stable.
04= ARCNET chip not exist.
05= Failuer of reset operation
06= Status RI is not changed to 1 after accept of reception.
07= Diagnostic operation failuer. After initialize the chip, chip RAM's first address data is not D1h.
08= Duplicate ID error
14= Power down error

27) In-line (ARCNET) initial test

This operation will initialize the In-line (ARCNET) function. And , when the machine is connected to the other machine, the token signal is sent to the other machine.



Wiring diagram for the connection cable

Signal	Pin
SD	1
RD	2

In-line port

Signal	Pin
SD	1
RD	2

In-line port

Opeartion : [s] [s] [b] [6] [0] [7] [#2] Key

b: Baud rate selection
0= 156 K bps 1= 312 K bps

ss: The machine ID number

NOTE1: To stop this opeartion, press any key or trun off the mode key switch.

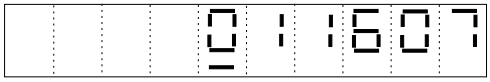
[PRINT]

YOUR RECEIPT
THANK YOU
011607

[DISPLAY]

Dot display

Segment display



7-6. To exit the diagnostic mode

To escape the diagnostic mode, execute INITIALIZE (MAC) operation.

8. ERROR CODE

8-1.Operation error code

When an error condition is generated, one of the following error codes (E001 – E205) is displayed to indicate the cause of the error and the corrective action.

Error code	Message	Meaning	Action
E001	Wrong mode	Mode switch position changed before finalization.	Return the mode switch to its original setting and finalize the operation.
E003	Wrong operator	Clerk button pressed before finalization of a registration being performed under another clerk button. The signed on clerk differs from the clerk performed the tracking check registration.	Press the original clerk button and finalize the transaction before pressing another clerk button. Input correct check number or assign the proper clerk number.
E004	Error INIT/FC	Initialization or unit lock clear operation in progress.	Complete operation.
E005	Insufficient memory	Memory allocation exceeds total memory capacity.	Reallocate memory or expand memory (if possible).
E008	Please sign on	Registration without entering a clerk number.	Enter a clerk number.
E009	Enter password	Operation without entering the password.	Enter password.
E010	Close the drawer	The drawer is left open longer than the program time (drawer open alarm).	Close the drawer.
E011	Close the drawer	Attempt to register while the cash drawer is open.	Shut the cash drawer.
E013	Journal paper near end	Journal paper near end. (option)	Replace the journal paper.
E015	Check R/J printer	Printer error	
E016	Change back to REG mode	Two consecutive transactions attempted in the refund mode.	Switch to another mode and then back to the RF mode for the next transaction.
E017	Enter CHK/TBL number	Attempt made to register an item without inputting a check number.	Input a check number.
E018	Enter Table number	Attempt made to register an item without inputting a table number.	Input a table number.
E019	Enter number of customers	Finalize operation attemped without entering the number of customer.	Enter the number of customer.
E021	No Dept Link	No department linked PLU is registered.	Correct the program.
E022	Not found PLU	PLU code is not found in the scanning PLU file.	Perform department registration.
E023	Stock shortage	Actual stock quantity becomes less than the minimum stock quantity.	Perform stock maintenance.
E024	No stock	Actual stock quantity becomes/is negative.	Perform stock maintenance.
E025	Illegal scale read or entry	Scale read error/perform non-scale registration to scalable item.	Retry registration/register to a proper department or PLU.
E026	Enter condiment/preparation PLU	No condiment/preparation PLU is registered.	Register condiment/preparation PLU.
E029	In the tender operation	Item registration is prohibited, while partial tender.	Finalize the transaction.
E030	Press RATE TAX key	Finalization of a transaction attempted without registering rate-tax.	Register <RATE TAX>.
E031	Press ST key	Finalization of a transaction attempted without confirming the subtotal.	Press <SUBTOTAL>.
E032	Press FSST key	Finalization of a transaction attmempted without confirming of the food stamp subtotal.	Press <FS/ST>.
E033	Enter tender amount	Finalize operation attempted without entering amount tender.	Enter the amount tendered.
E035	Change amount exceeds limit	Change amount exceeds preset limit.	Input amount tendered again.
E036	Remove money from the drawer	Contents of the drawer exceed programmed limit.	Perform pick up operation.
E037	Digit or amount limitation over	High amount lock out/low digit lock out error	Enter correct amount.
E038	Perform money declaration	Read/reset operation without declaring cash in drawer. This error appears only when this function is activated.	Perform money declaration.
E040	Issue guest receipt	Attempt to register a new transaction without issuing a guest receipt.	Issue a guest receipt.
E041	Print validation	Attempt to register a new transaction without validation.	Perform validation operation.
E044	Print cheque	Attempt to register a new transaction without printing check.	Perform check print.
E045	Print Cheque Endorsement	Attempt to register a new transaction without printing check endorsement.	Perform check endorsement.
E046	REG buffer full	Registration buffer full. Separate check buffer full.	Finalize the transaction. Allocate sufficient separate check buffer.
E047	Print bill	Attempt to register a new transaction without printing slip.	Perform slip printing operation.
E048	Insert slip paper and retry	No paper is inserted or paper is out in the slip printer.	Insert new slip paper.

Error code	Message	Meaning	Action
E049	**CHECK memory full**	Check tracking index memory full.	Finalize and close the check number currently used.
E050	**DETAIL memory full**	Check tracking detail memory full.	Finalize and close the check number currently used.
E051	**CHK/TBL No. is occupied**	Attempt to made use <NEW CHECK> to open a new check using a number that is already used for an existing check in check tracking memory.	Finalize and close the check that is currently under the number that you want to use or use a different check number.
E053	**CHK/TBL No. is not opened**	Attempt made to use <OLD CHECK> reopen a new check using a number that is not used for an existing check in check tracking memory.	Use the correct check number (if you want to reopen a check that already exists in check tracking memory) or use <NEW CHECK> to open a new check.
E054	**Out of CHK/TBL No. range**	Check number range over.	Enter correct number.
E055	**In the SEP CHK operation**	Normal registration is prohibited during separate check operation.	Terminate separate check operation.
E059	**Press EAT-IN or TAKE-OUT key**	Attempt to finalize a transaction without specifying <EAT-IN> or <TAKE-OUT>.	Press <EAT-IN> or <TAKE-OUT>.
E060	**Printer offline**	External printer offline	
E061	**Printer error**	External printer went down.	
E062	**Printer paper end**	External printer paper end	Replace new paper.
E063	**Printer busy**	External printer is now printing.	
E064	**Print buffer full**	Printing buffer full	
E066	**Print from the beginning of the transaction**	Attempt to print the last separated transaction on slip.	Print from the beginning of the transaction
E075	**Negative balance cannot be finalized**	Attempt to finalize a transaction when balance is less than or equal to zero.	Register item(s) until the balance becomes positive amount.
E085	**Data exist in consolidation file**	Data exists in the consolidation file.	Clear the data.
E099	**Check NFP items**	Disable to read/reset or consolidate the not found PLU item.	
E100	**Operate at master terminal**	Prohibit master operation.	Perform it at master terminal.
E101	**PLU maintenance file full. Press <#2> to exit**	Scanning PLU direct maintenance/batch maintenance file becomes full.	Terminate the maintenance.
E102	**NFP maintenance file full. Press <#2> to exit**	Not found PLU maintenance file becomes full.	Terminate the maintenance
E105	**PLU file full**	Scanning PLU/not found PLU file full	
E121	**Inline startup error**	Network startup error.	
E139	**Negative balance is not allowed**	Attempt to register <–> or <CPN> when the balance becomes negative.	Enter proper minus/coupon amount.
E146	**Arrangement file full**	Arrangement file is full.	Set the arrangement properly.
E200	**Insert RAC-9**	No memory cassette is set.	Set memory cassette.
E202	**File not found**	Can not read, because no designated file is in the memory cassette or internal flash memory.	Check the operation and retry.
E203	**Insufficient memory**	Insufficient memory in the memory cassette or internal flash memory.	Use a vacant (formatted) memory cassette.
E204	**Check the write protect switch**	Write protect switch of the memory cassette is on.	Check the write protect switch.
E205	**File already exist.**	Can not write, because designated file has already been in the memory cassette or internal flash memory.	Check the operation and retry.

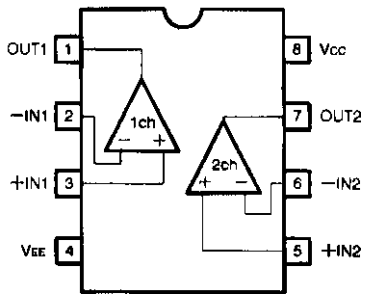
8-2. System error code

Error code	Meaning	Error code	Meaning
File I/O errors		**2021**	File creat error
750	File cannot be created.	**2022**	File I/O error
751	No designated drive	**2023**	Error retry error
752	FCB area shortage of flash memory	**2024**	Receive SYN error
753	No appropriate record number is designated.	**2025**	Receive FIN error
754	No partation exists.	**2026**	FIN is in sending sequence whole recalling n_write()
755	No vacant record is remained.	**2027**	Irregal format
756	Changing is not permitted.	**2028**	Irregal command
757	The designate file cannot be found.	**2029**	Busy with response
758	The same file has already existed.	**2030**	Communication abortion
759	The same page has already existed.	**2031**	Online receiving hardware error
760	No vacant record is remained.	**2032**	Inline receiving hardware error
762	The contents of internal memory and memory cassette are different.	**2033**	Online receiving overrun
763	The contents of scanning PLU file amoung the master/satellite terminals are different.	**2034**	Online sending hardware error
764	Write error	**2035**	Inline sending hardware error
Flash (Memory cassette) I/O errors		**2036**	Token is not detected while sending
781	Memory cassette device error	**2037**	Time over while detecting DSR ON
783	Memory cassette format error	**Program data send/receive (auto-program) errors**	
785	No designated file	**2100**	Command code error
788	The file is already existed in the memory cassette.	**2101**	Index format error
790	Memory cassette write protect error	**2102**	Machine ID number error
791	Internal flash memory format error	**2103**	Maximum record number error
Communication errors		**Mail box function errors**	
2000	Network join error	**2300**	Mail box full error
2001	Inline port open error	**2301**	Job number error
2002	Inline synchrinize error	**Other errors**	
2003	Inline command error	**2900**	Break operation
2004	Time over	**2901**	Password error
2005	Parameter error	**2902**	I/O parameter program error
2006	Time out	**Logic driver initialize common errors**	
2007	ID number over error	**5000**	Parameter error (Irregal information of I/O parameter)
2008	Packet error	**5001**	No connection (Irregal information of I/O parameter)
2009	ID	**5010**	Logical driver COM open error
2010	WAK receive error	**5011**	Logical driver COM double open
2011	Packet type error	**5012**	Logical driver COM not open
2012	Sequence error	**5013**	Logical driver COM device error
2013	Packet format error	**5014**	Logical driver COM remain data error
2014	Time over (5 seconds)	**MODEM errors**	
2015	User time out	**5300**	MODEM initialize error
2016	Other communication error	**5301**	MODEM open error
2017	Not found PLU area error	**5302**	Negotiation error
2018	Online port open error	**5303**	AT command sending error
2019	No response	**5304**	Control ER error
2020	Fole not found	**5305**	Receive status error

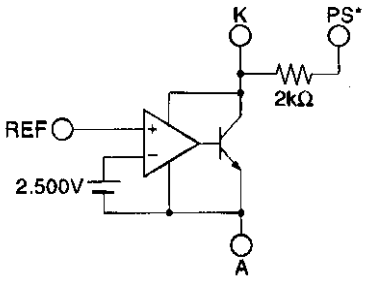
9. IC DATA

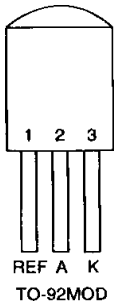
1. BA10393F-E2

BA10393/BA10393F

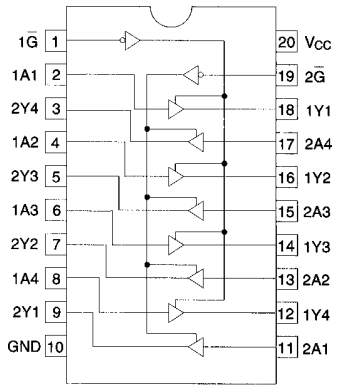


2. HA17431PA





3. HD74LVC244ATELL

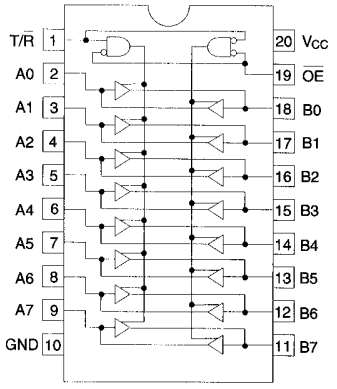


(Top view)

Inputs		Output Y
$\overline{G}$	A	
H	X	Z
L	H	H
L	L	L

H : High
L : Low
X : Don't care
Z : High impedance

4. HD74LVC245ATELL

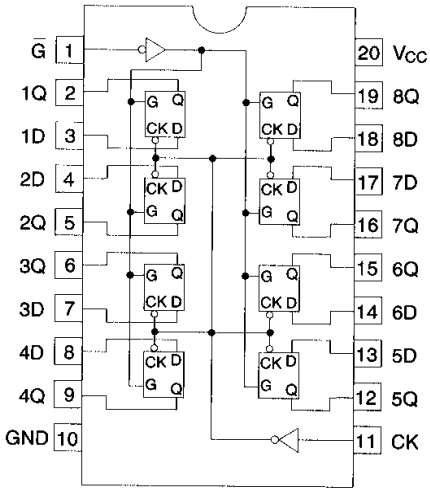


(Top view)

Inputs		Output Y
$\overline{OE}$	T / $\overline{R}$	
L	L	Bus B Data to Bus A
L	H	Bus A Data to Bus B
H	X	Z

H : High
L : Low
X : Don't care
Z : High impedance

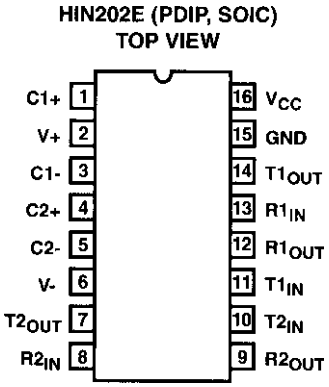
5. HD74LVC374ATELL

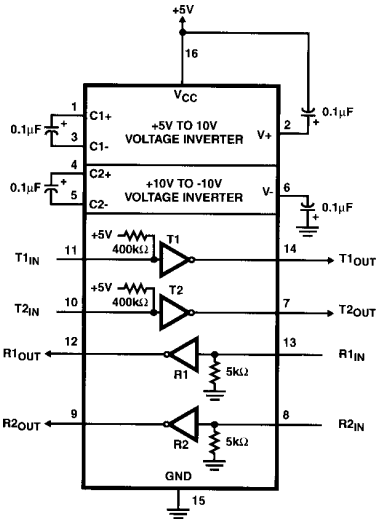


(Top view)

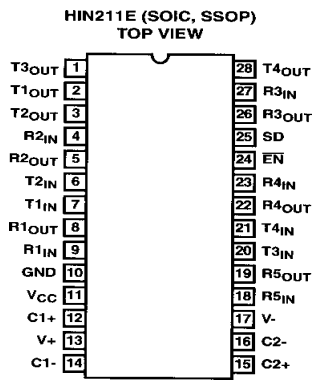
Inputs			Output Q
G	CK	D	
H	X	X	Z
L	⌐	L	L
L	⌐	H	H
L	L	X	Q_0

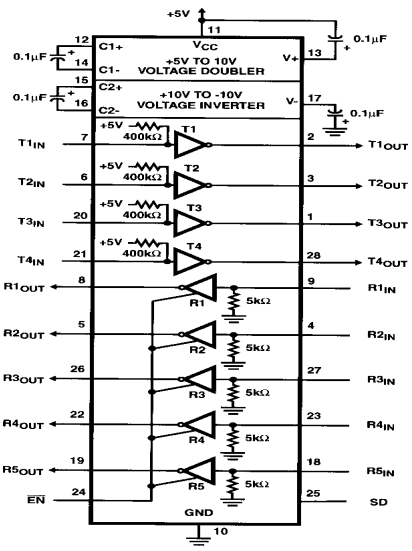
6. HIN202CBN-T



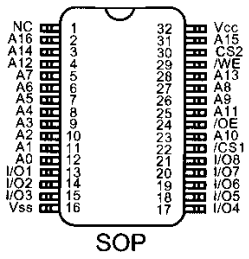


7. HIN211CA-T

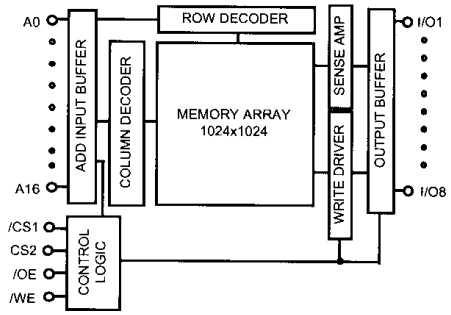




8. HY628100ALLG-70



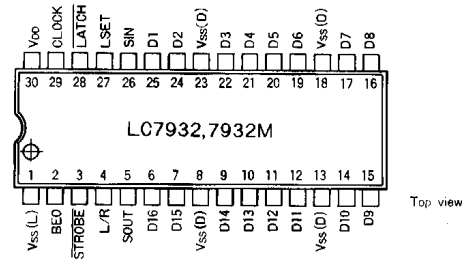
BLOCK DIAGRAM

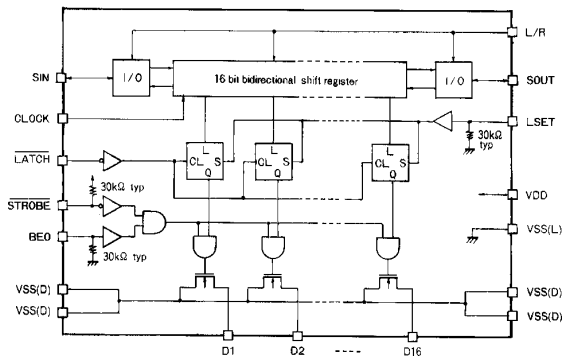


PIN DESCRIPTION

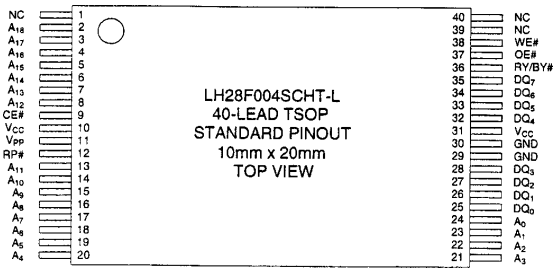
Pin Name	Pin Function
/CS1	Chip Select 1
CS2	Chip Select 2
/WE	Write Enable
/OE	Output Enable
A0 ~ A16	Address Input
I/O1 ~ I/O8	Data Input/Output
Vcc	Power(5.0V)
Vss	Ground

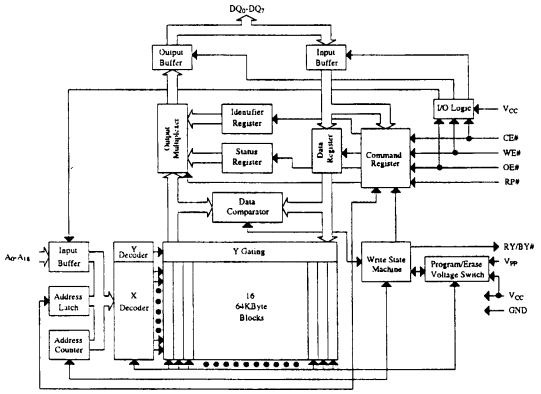
9. LC7932M-TE-R





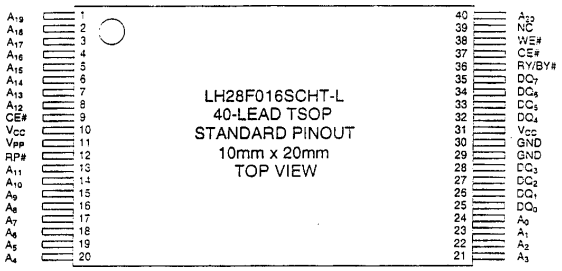
10. LH28F004SCT-LB5

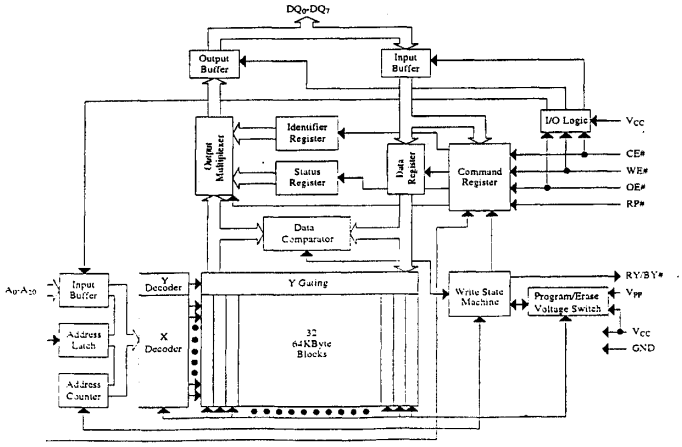




Sym	Type	Name and Function
A_0-A_{18}	INPUT	**ADDRESS INPUTS:** Inputs for addresses during read and write operations. Addresses are internally latched during a write cycle.
DQ_0-DQ_7	INPUT/ OUTPUT	**DATA INPUT/OUTPUTS:** Inputs data and commands during CUI write cycles; outputs data during memory array, status register, and identifier code read cycles. Data pins float to high-impedance when the chip is deselected or outputs are disabled. Data is internally latched during a write cycle.
CE#	INPUT	**CHIP ENABLE:** Activates the device's control logic, input buffers, decoders, and sense amplifiers. CE#-high deselects the device and reduces power consumption to standby levels.
RP#	INPUT	**RESET/DEEP POWER-DOWN:** Puts the device in deep power-down mode and resets internal automation. RP#-high enables normal operation. When driven low, RP# inhibits write operations which provides data protection during power transitions. Exit from deep power-down sets the device to read array mode. RP# at V_{HH} enables setting of the master lock-bit and enables configuration of block lock-bits when the master lock-bit is set. RP#=V_{HH} overrides block lock-bits thereby enabling block erase and byte write operations to locked memory blocks. Block erase, byte write, or lock-bit configuration with V_{IH}<RP#<V_{HH} produce spurious results and should not be attempted.
OE#	INPUT	**OUTPUT ENABLE:** Gates the device's outputs during a read cycle.
WE#	INPUT	**WRITE ENABLE:** Controls writes to the CUI and array blocks. Addresses and data are latched on the rising edge of the WE# pulse.
RY/BY#	OUTPUT	**READY/BUSY#:** Indicates the status of the internal WSM. When low, the WSM is performing an internal operation (block erase, byte write, or lock-bit configuration). RY/BY#-high indicates that the WSM is ready for new commands, block erase is suspended, and byte write is inactive, byte write is suspended, or the device is in deep power-down mode. RY/BY# is always active and does not float when the chip is deselected or data outputs are disabled.
V_{PP}	SUPPLY	**BLOCK ERASE, BYTE WRITE, LOCK-BIT CONFIGURATION POWER SUPPLY:** For erasing array blocks, writing bytes, or configuring lock-bits. With $V_{PP} \leq V_{PPLK}$, memory contents cannot be altered. Block erase, byte write, and lock-bit configuration with an invalid V_{PP} (see DC Characteristics) produce spurious results and should not be attempted.
V_{CC}	SUPPLY	**DEVICE POWER SUPPLY:** Internal detection configures the device for 2.7V, 3.3V or 5V operation. To switch from one voltage to another, ramp V_{CC} down to GND and then ramp V_{CC} to the new voltage. Do not float any power pins. With $V_{CC} \leq V_{LKO}$, all write attempts to the flash memory are inhibited. Device operations at invalid V_{CC} voltage (see DC Characteristics) produce spurious results and should not be attempted. Block erase, byte write and lock-bit configuration operations with V_{CC}<3.0V are not supported.
GND	SUPPLY	**GROUND:** Do not float any ground pins.
NC		**NO CONNECT:** Lead is not internal connected; it may be driven or floated.

11. LH28F016SCT-L95A

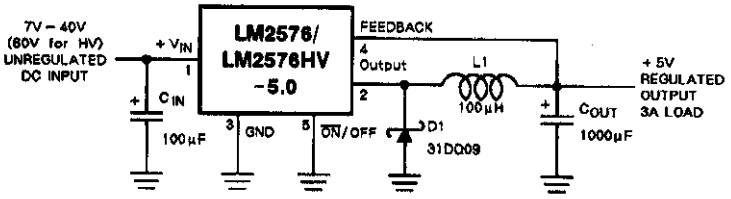




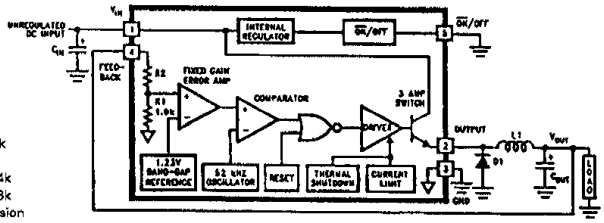
Sym	Type	Name and Function
A_0-A_{20}	INPUT	**ADDRESS INPUTS:** Inputs for addresses during read and write operations. Addresses are internally latched during a write cycle.
DQ_0-DQ_7	INPUT/ OUTPUT	**DATA INPUT/OUTPUTS:** Inputs data and commands during CUI write cycles; outputs data during memory array, status register, and identifier code read cycles. Data pins float to high-impedance when the chip is deselected or outputs are disabled. Data is internally latched during a write cycle.
CE#	INPUT	**CHIP ENABLE:** Activates the device's control logic, input buffers, decoders, and sense amplifiers. CE#-high deselects the device and reduces power consumption to standby levels.
RP#	INPUT	**RESET/DEEP POWER-DOWN:** Puts the device in deep power-down mode and resets internal automation. RP#-high enables normal operation. When driven low, RP# inhibits write operations which provides data protection during power transitions. Exit from deep power-down sets the device to read array mode. RP# at V_{HH} enables setting of the master lock-bit and enables configuration of block lock-bits when the master lock-bit is set. RP#=V_{HH} overrides block lock-bits thereby enabling block erase and byte write operations to locked memory blocks. Block erase, byte write, or lock-bit configuration with V_{IH}<RP#<V_{HH} produce spurious results and should not be attempted.
OE#	INPUT	**OUTPUT ENABLE:** Gates the device's outputs during a read cycle.
WE#	INPUT	**WRITE ENABLE:** Controls writes to the CUI and array blocks. Addresses and data are latched on the rising edge of the WE# pulse.
RY/BY#	OUTPUT	**READY/BUSY#:** Indicates the status of the internal WSM. When low, the WSM is performing an internal operation (block erase, byte write, or lock-bit configuration). RY/BY#-high indicates that the WSM is ready for new commands, block erase is suspended, and byte write is inactive, byte write is suspended, or the device is in deep power-down mode. RY/BY# is always active and does not float when the chip is deselected or data outputs are disabled.
V_{PP}	SUPPLY	**BLOCK ERASE, BYTE WRITE, LOCK-BIT CONFIGURATION POWER SUPPLY:** For erasing array blocks, writing bytes, or configuring lock-bits. With $V_{PP} \le V_{PPLK}$, memory contents cannot be altered. Block erase, byte write, and lock-bit configuration with an invalid V_{PP} (see DC Characteristics) produce spurious results and should not be attempted.
V_{CC}	SUPPLY	**DEVICE POWER SUPPLY:** Internal detection configures the device for 2.7V, 3.3V or 5V operation. To switch from one voltage to another, ramp V_{CC} down to GND and then ramp V_{CC} to the new voltage. Do not float any power pins. With $V_{CC} \le V_{LKO}$, all write attempts to the flash memory are inhibited. Device operations at invalid V_{CC} voltage (see DC Characteristics) produce spurious results and should not be attempted. Block erase, byte write and lock-bit configuration operations with V_{CC}<3.0V are not supported.
GND	SUPPLY	**GROUND:** Do not float any ground pins.
NC		**NO CONNECT:** Lead is not internal connected; it may be driven or floated.

12. LM2576HVT-5.0LB03

Typical Application (Fixed Output Voltage Versions)

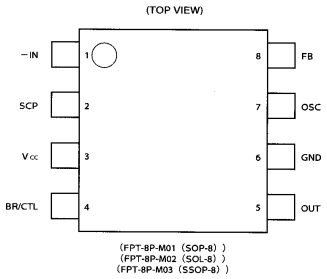


Block Diagram

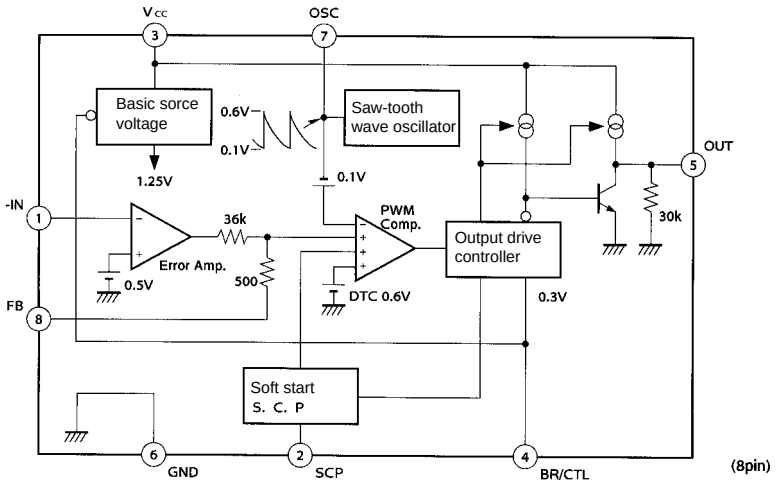


3.3V R2 = 1.7k
5V, R2 = 3.1k
12V, R2 = 8.84k
15V, R2 = 11.3k
For ADJ, Version
R1 = Open, R2 = 0 Ω

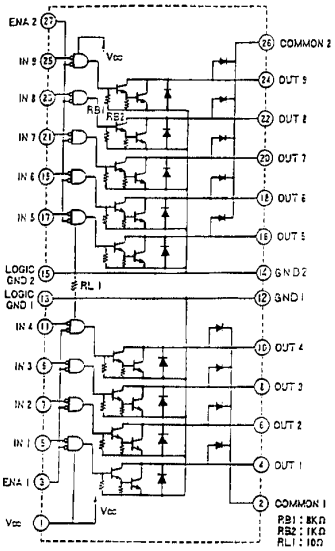
13. MB3800PF

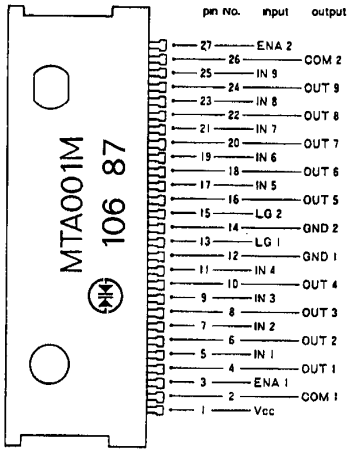


Pin No.	Name	I/O	Description
1	–IN	I	Input for Error Amp.
2	SCP	—	Soft start/ SPC preset capacitor terminal
3	Vcc	—	Power supply
4	BR/CTL	I	Output current preset/ control terminal
5	OUT	O	Output terminal (totem pole type)
6	GND	—	GND
7	OSC	—	Oscillation friquency preset capacitor/ resister connection terminal
8	FB	O	Error amp. output terminal



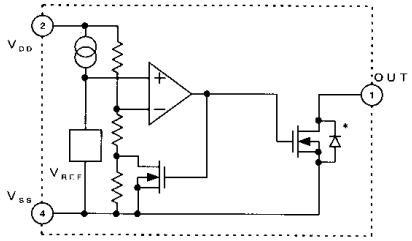
14. MTA001M-F4101



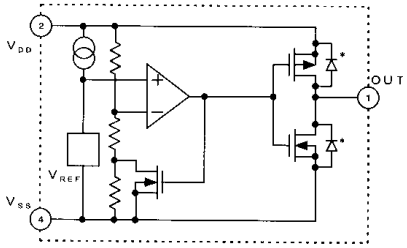


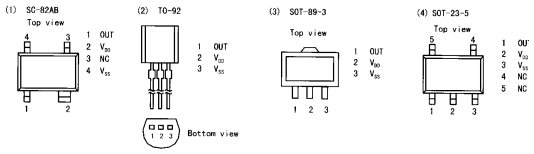
15. S-80823ANNP-EDL/S-80835ALNP-EAZ

(1) Nch open drain active low output



(2) CMOS active low output



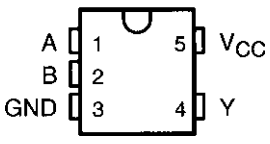


S-808XX AX XX - XXX - T2

- Tape spec. IC direction
- Production short No.
- Package No.
  - NP: SC-82AB
  - MP: SOT-23-5
  - UP: SOT-89-3
  - Y: TO-92
- Output
  - N: Nch open drain (Active "L")
  - L: CMOS (Active "L")
- Detection Voltage X 10 times

16. SN74AHC1G00DCKR

DBV OR DCK PACKAGE
(TOP VIEW)

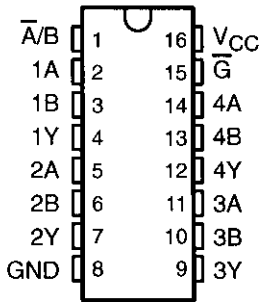


FUNCTION TABLE

INPUTS		OUTPUT
A	B	Y
H	H	L
L	X	H
X	L	H

17. SN74HC157APWR

SN54HC157 . . . J OR W PACKAGE
SN74HC157 . . . D OR N PACKAGE
(TOP VIEW)

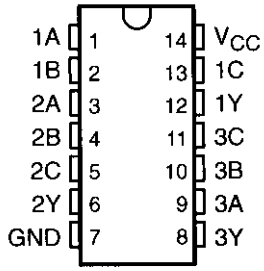


FUNCTION TABLE

INPUTS				OUTPUT
$\overline{G}$	SELECT $\overline{A}$/B	DATA A	DATA B	Y
H	X	X	X	L
L	L	L	X	L
L	L	H	X	H
L	H	X	L	L
L	H	X	H	H

18. SN74HC27PWR

SN54HC27 . . . J OR W PACKAGE
SN74HC27 . . . D OR N PACKAGE
(TOP VIEW)

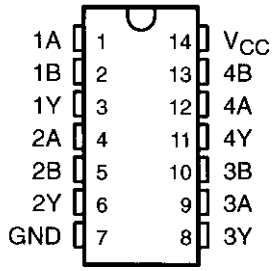


FUNCTION TABLE
(each gate)

INPUTS			OUTPUT
A	B	C	Y
H	X	X	L
X	H	X	L
X	X	H	L
L	L	L	H

19. SN74LV00APWR

SN54LV00A . . . J OR W PACKAGE
SN74LV00A . . . D, DB, DGV, NS, OR PW PACKAGE
(TOP VIEW)

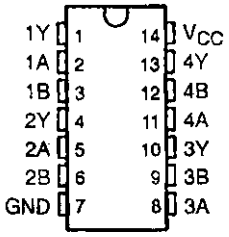


FUNCTION TABLE
(each gate)

INPUTS		OUTPUT
A	B	Y
H	H	L
L	X	H
X	L	H

20. SN74LV02APWR

SN54LV02 . . . J OR W PACKAGE
SN74LV02 . . . NS, DB, OR PW PACKAGE
(TOP VIEW)

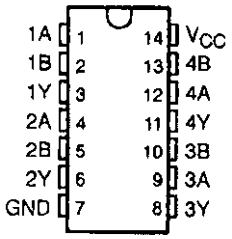


FUNCTION TABLE
(each gate)

INPUTS		OUTPUT
A	B	Y
H	X	L
X	H	L
L	L	H

21. SN74LV08APWR

SN54LV08 . . . J OR W PACKAGE
SN74LV08 . . . NS, DB, OR PW PACKAGE
(TOP VIEW)

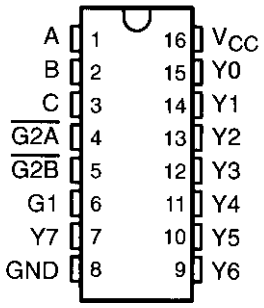


FUNCTION TABLE
(each gate)

INPUTS		OUTPUT
A	B	Y
H	H	H
L	X	L
X	L	L

22. SN74LV138APWR

SN54LV138A . . . J OR W PACKAGE
SN74LV138A . . . D, DB, DGV, NS, OR PW PACKAGE
(TOP VIEW)

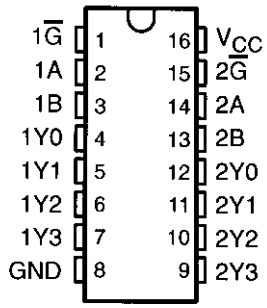


FUNCTION TABLE

ENABLE INPUTS			SELECT INPUTS			OUTPUTS							
G1	$\overline{G2A}$	$\overline{G2B}$	C	B	A	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
X	H	X	X	X	X	H	H	H	H	H	H	H	H
X	X	H	X	X	X	H	H	H	H	H	H	H	H
L	X	X	X	X	X	H	H	H	H	H	H	H	H
H	L	L	L	L	L	L	H	H	H	H	H	H	H
H	L	L	L	L	H	H	L	H	H	H	H	H	H
H	L	L	L	H	L	H	H	L	H	H	H	H	H
H	L	L	L	H	H	H	H	H	L	H	H	H	H
H	L	L	H	L	L	H	H	H	H	L	H	H	H
H	L	L	H	L	H	H	H	H	H	H	L	H	H
H	L	L	H	H	L	H	H	H	H	H	H	L	H
H	L	L	H	H	H	H	H	H	H	H	H	H	L

23. SN74LV139APWR

SN54LV139A . . . J OR W PACKAGE
SN74LV139A . . . D, DB, DGV, NS, OR PW PACKAGE
(TOP VIEW)

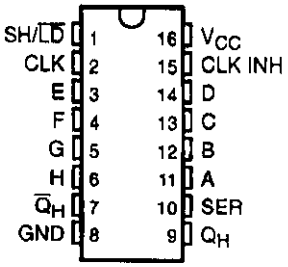


FUNCTION TABLE

INPUTS			OUTPUTS			
$\overline{G}$	SELECT					
	B	A	Y0	Y1	Y2	Y3
H	X	X	H	H	H	H
L	L	L	L	H	H	H
L	L	H	H	L	H	H
L	H	L	H	H	L	H
L	H	H	H	H	H	L

24. SN74LV165APWR

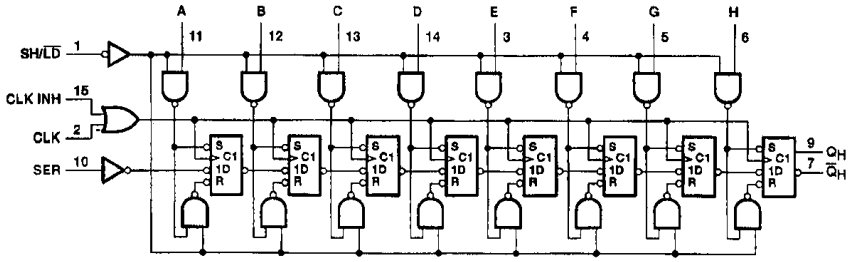
SN54LV165 . . . J OR W PACKAGE
SN74LV165 . . . NS, DB, OR PW PACKAGE
(TOP VIEW)



FUNCTION TABLE

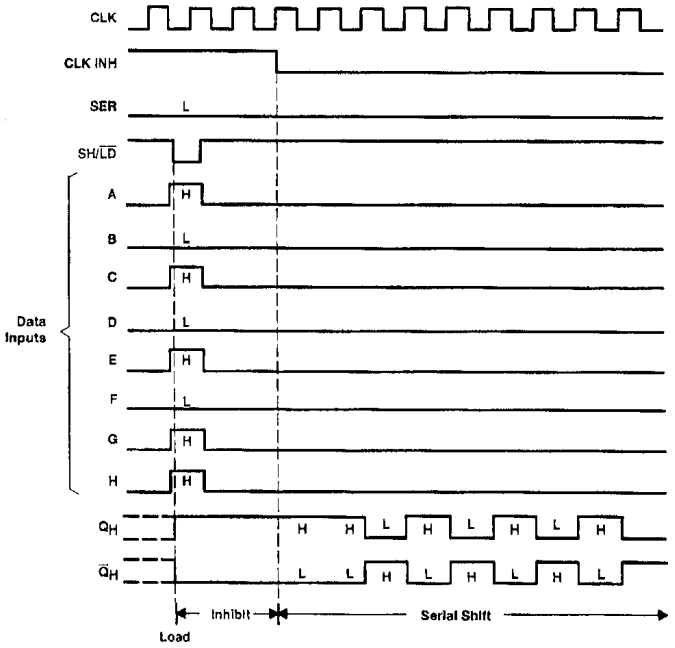
INPUTS			OPERATION
SH/$\overline{LD}$	CLK	CLK INH	
L	X	X	Parallel load
H	H	X	Q_0
H	X	H	Q_0
H	L	↑	Shift
H	↑	L	Shift

logic diagram (positive logic)



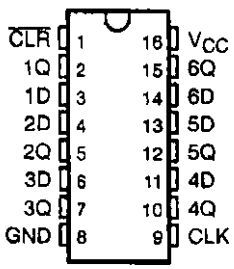
Pin numbers shown are for D, DB, J, PW, and W packages.

typical shift, load, and inhibit sequences



25. SN74LV174PWR

SN54LV174 . . . J OR W PACKAGE
SN74LV174 . . . NS, DB, OR PW PACKAGE
(TOP VIEW)

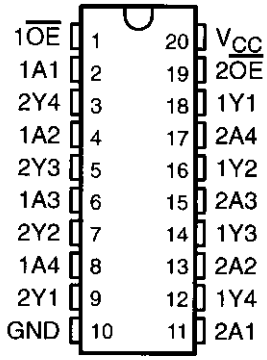


FUNCTION TABLE

INPUTS			OUTPUT
$\overline{CLR}$	CLK	D	Q
L	X	X	L
H	↑	H	H
H	↑	L	L
H	L	X	Q_0

26. SN74LV244APWR

SN54LV244A . . . J OR W PACKAGE
SN74LV244A . . . DB, DGV, DW, NS, OR PW PACKAGE
(TOP VIEW)

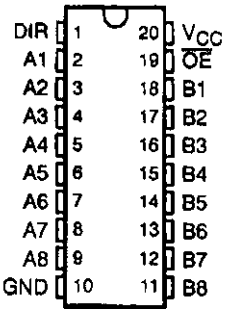


FUNCTION TABLE
(each buffer)

INPUTS		OUTPUT
$\overline{OE}$	A	Y
L	H	H
L	L	L
H	X	Z

27. SN74LV245APWR

SN54LV245 . . . J OR W PACKAGE
SN74LV245 . . . NS, DB, OR PW PACKAGE
(TOP VIEW)

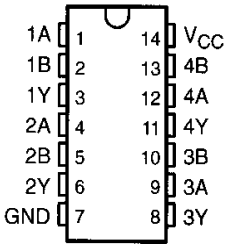


FUNCTION TABLE

INPUTS		OPERATION
$\overline{OE}$	DIR	
L	L	B data to A bus
L	H	A data to B bus
H	X	Isolation

28. SN74LV32APWR

SN54LV32A . . . J OR W PACKAGE
SN74LV32A . . . D, DB, DGV, NS, OR PW PACKAGE
(TOP VIEW)

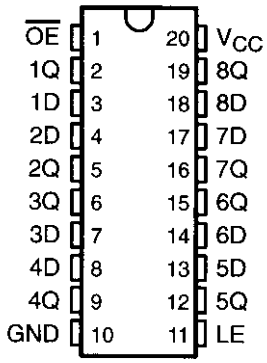


FUNCTION TABLE
(each gate)

INPUTS		OUTPUT
A	B	Y
H	X	H
X	H	H
L	L	L

29. SN74LV373APWT-EL

SN54LV373A . . . J OR W PACKAGE
SN74LV373A . . . DB, DGV, DW, NS, OR PW PACKA(
(TOP VIEW)

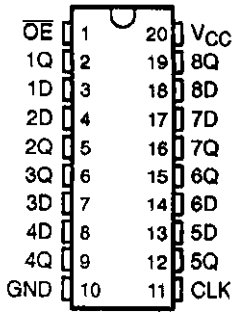


FUNCTION TABLE
(each latch)

INPUTS			OUTPUT
OE	LE	D	Q
L	H	H	H
L	H	L	L
L	L	X	Q_0
H	X	X	Z

30. SN74LV373APWT-EL

SN54LV374 . . . J OR W PACKAGE
SN74LV374 . . . NS, DB, OR PW PACKAGE
(TOP VIEW)

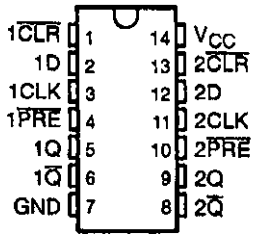


FUNCTION TABLE
(each flip-flop)

INPUTS			OUTPUT
OE	CLK	D	Q
L	↑	H	H
L	↑	L	L
L	L	X	Q_0
H	X	X	Z

31. SN74LV74APWR

SN54LV74 . . . J OR W PACKAGE
SN74LV74 . . . NS, DP, OR PW PACKAGE
(TOP VIEW)

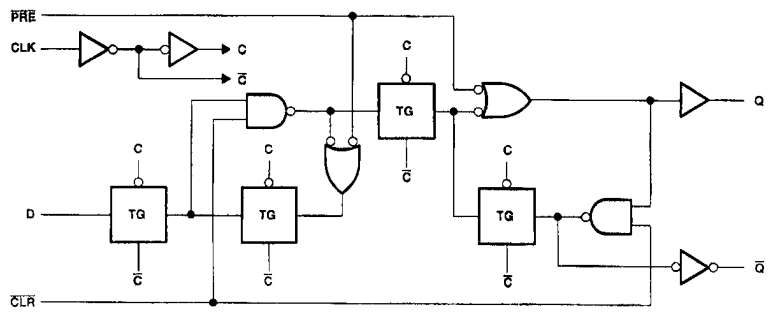


FUNCTION TABLE

INPUTS				OUTPUTS	
PRE	CLR	CLK	D	Q	Q
L	H	X	X	H	L
H	L	X	X	L	H
L	L	X	X	H†	H†
H	H	↑	H	H	L
H	H	↑	L	L	H
H	H	L	X	Q_0	$\overline{Q}_0$

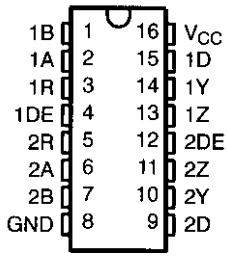
† This configuration is nonstable; that is, it does not persist when PRE or CLR returns to its inactive (high) level.

logic diagram, each flip-flop (positive logic)



32. SN751178NS-EL

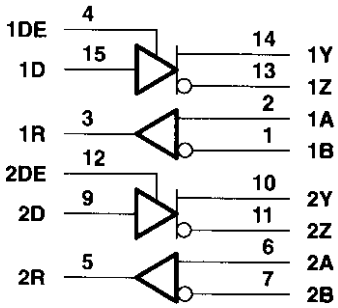
SN751178 . . . N, NS



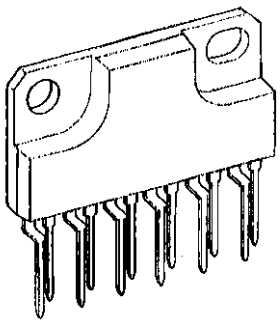
SN751178

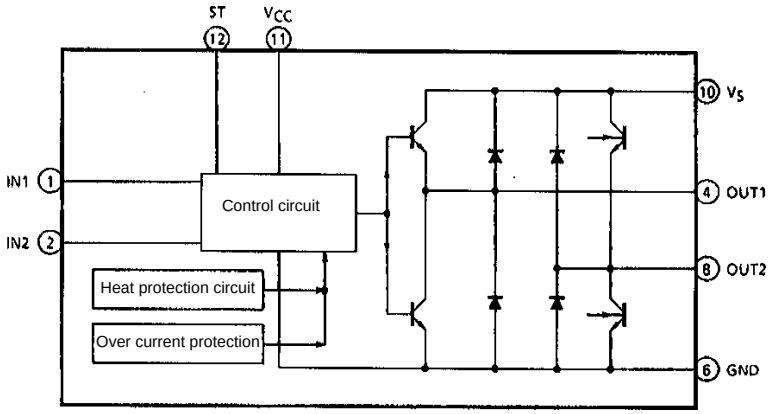
Input	Enable	Output	
D	DE	Y	Z
H	H	H	L
L	H	L	H
X	L	Z	Z

SN751178



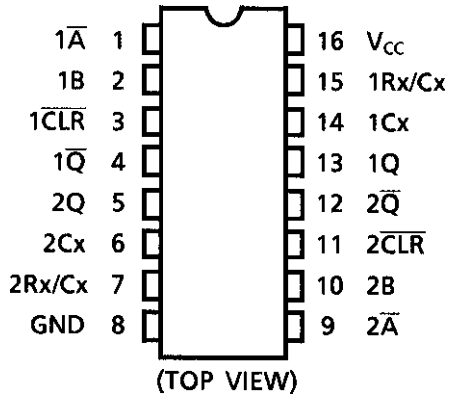
33. TA8429H





INPUT			OUTPUT		OUTPUT MODE
IN1	IN2	ST	OUT1	OUT2	
H	H	H	L	L	Brake
L	H	H	L	H	Reverse rotation
H	L	H	H	L	Positive rotation
L	L	H	OFF (High impedance)		Stop
H / L	H / L	L	OFF (High impedance)		Stand by

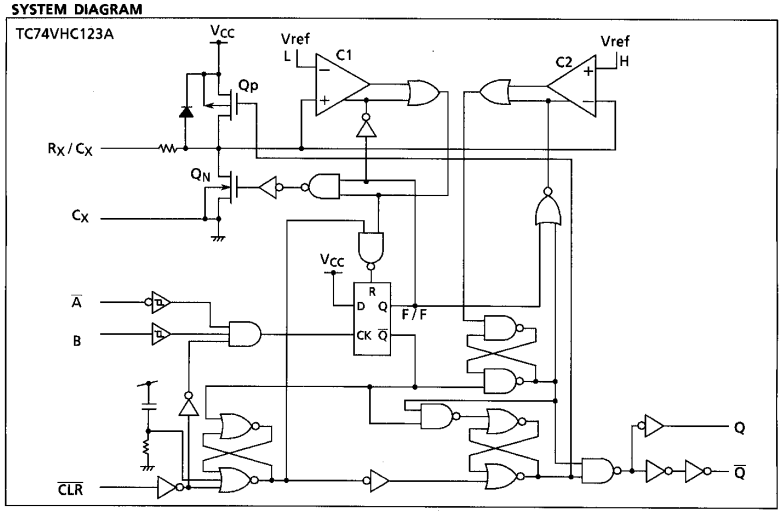
34. TC74VHC123AFT



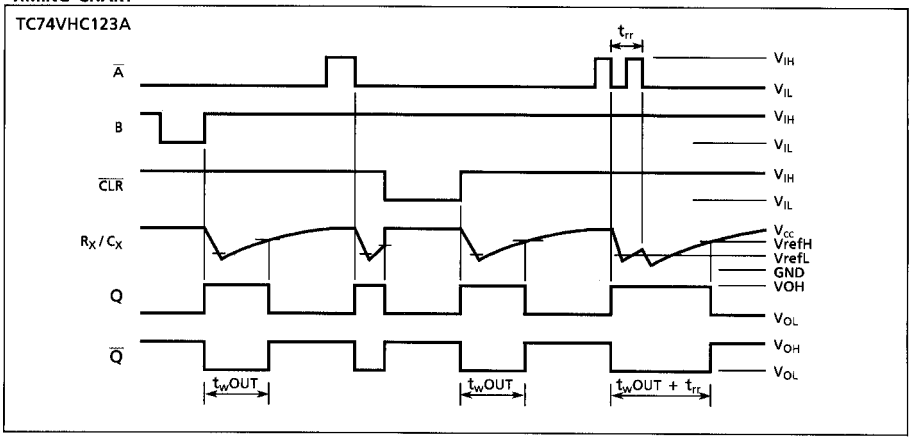
INPUTS			OUTPUTS		FUNCTION
Ā	B	C̄L̄R̄	Q	Q̄	
↓	H	H	⎍	⎎	OUTPUT ENABLE
X	L	H	L	H	INHIBIT
H	X	H	L	H	INHIBIT
L	↑	H	⎍	⎎	OUTPUT ENABLE
L	H	↑	⎍	⎎	OUTPUT ENABLE
X	X	L	L	H	RESET

X : Don't Care

SYSTEM DIAGRAM

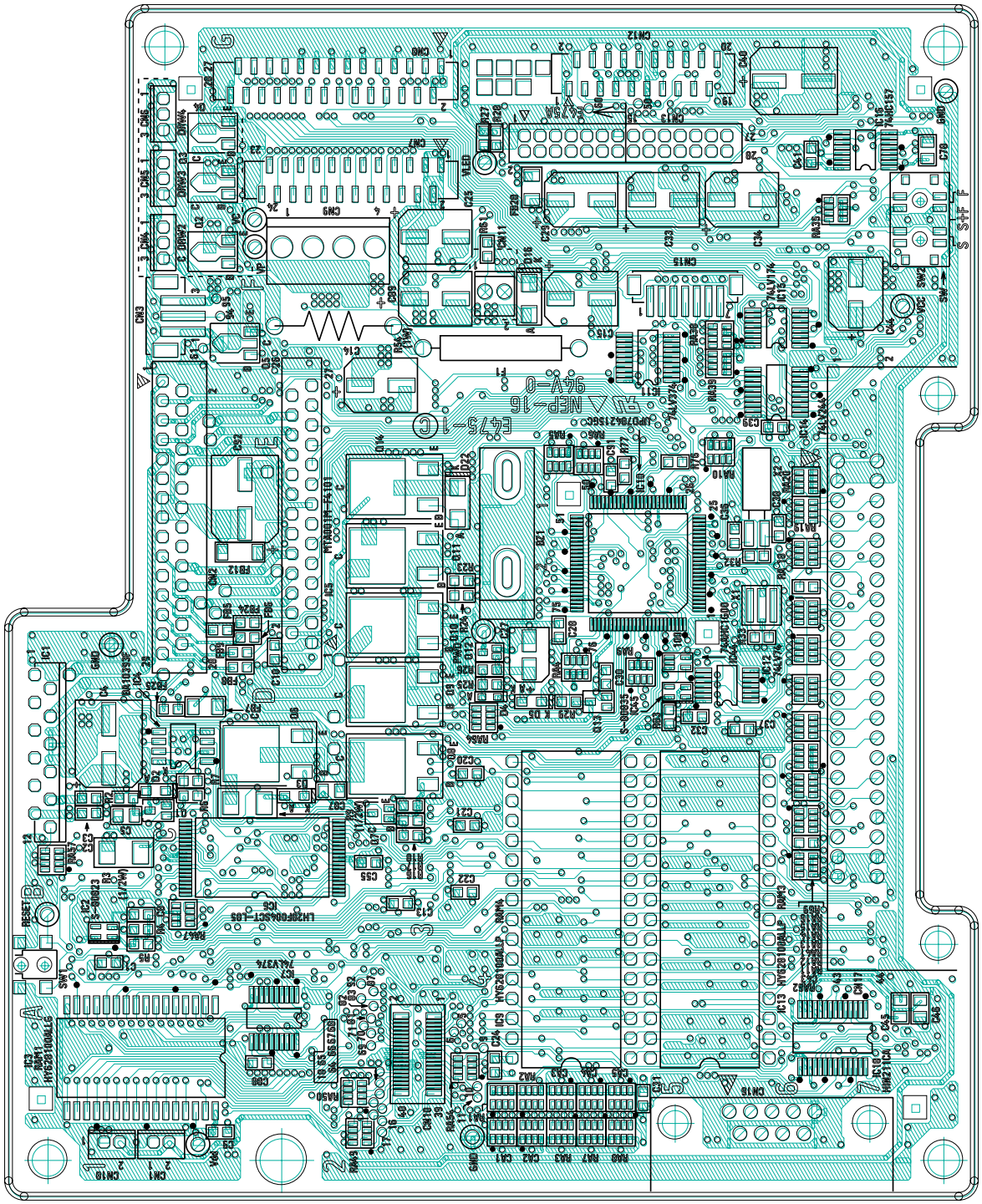


TIMING CHART

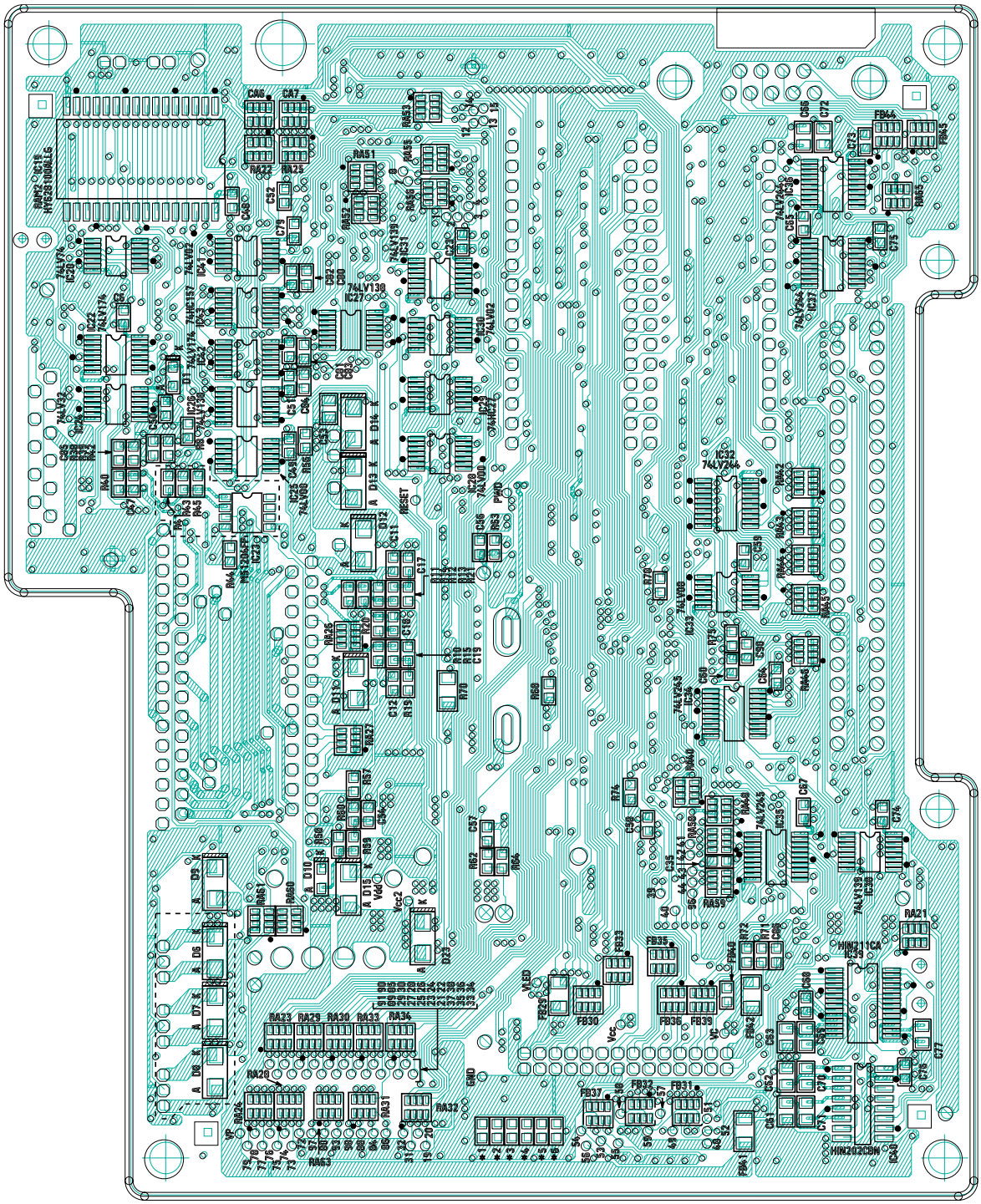


10. PCB LAYOUT

MAIN PCB (Front side)



MAIN PCB (Back side)



11. CIRCUIT DIAGRAM

MODEL : CE-7000 (EX-475B*,C*,D*)

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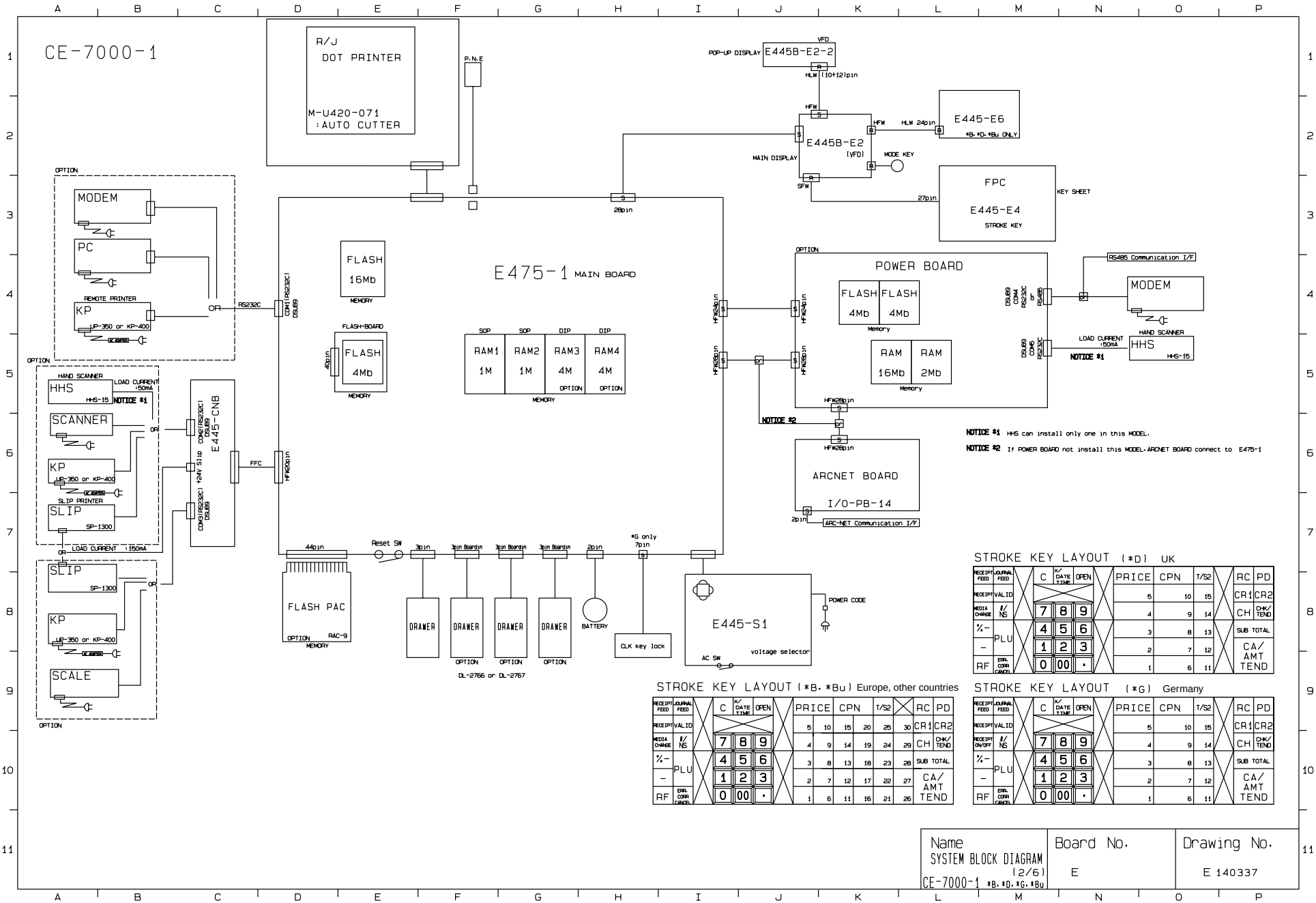


STROKE KEY LAYOUT (*D) UK

RECEIPT FEED	JOURNAL FEED	C	X/ DATE TIME	OPEN	PRICE	CPN	T/S2	RC	PD
RECEIPT	VALID				5	10	15	CR1	CR2
MEDIA CHANGE	#/ NS	7	8	9	4	9	14	CH	CHK/ TEND
%-	PLU	4	5	6	3	8	13	SUB TOTAL	
-		1	2	3	2	7	12	CA/ AMT TEND	
RF	ERR. CORR CANCEL	0	00	.	1	6	11		

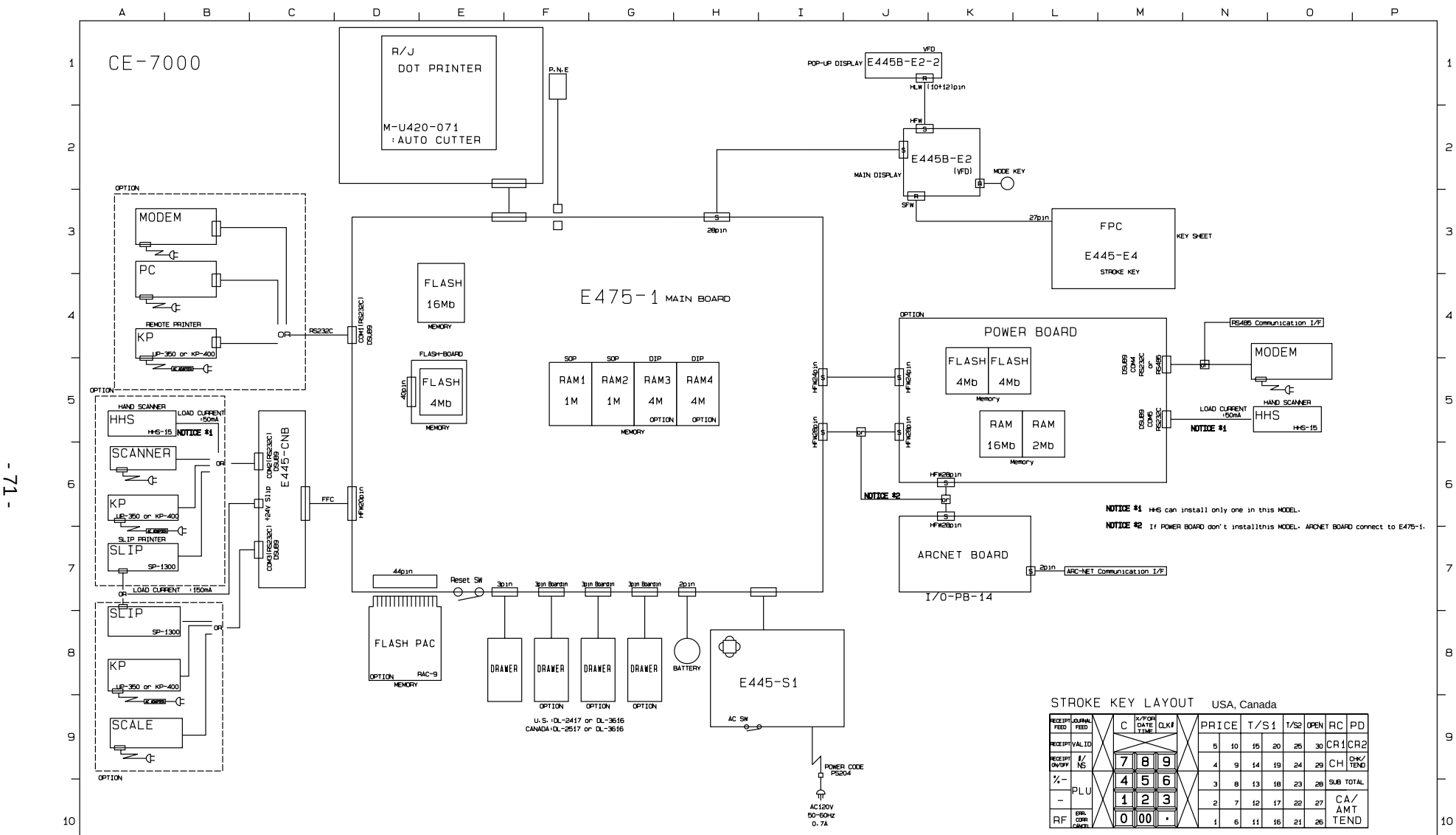
STROKE KEY LAYOUT (*B.*Bu) Europe, other countries

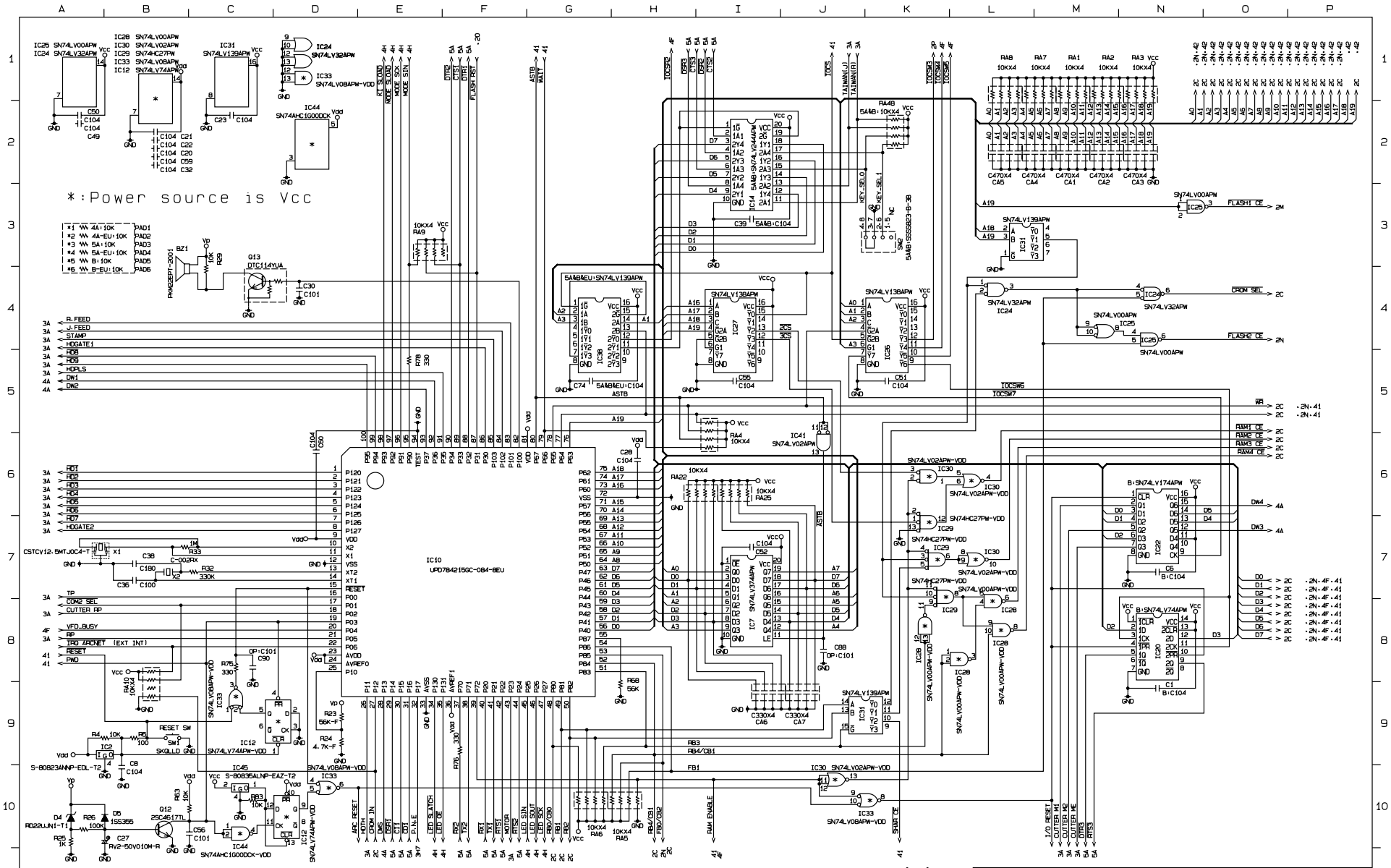
RECEIPT FEED	JOURNAL FEED	C	X/ DATE TIME	OPEN	PRICE	CPN	T/S2	RC	PD
RECEIPT	VALID				5 10 15 20 25 30			CR1	CR2
MEDIA CHANGE	#/ NS	7	8	9	4 9 14 19 24 29			CH	CHK/ TEND
%-	PLU	4	5	6	3 8 13 18 23 28			SUB TOTAL	
-		1	2	3	2 7 12 17 22 27			CA/ AMT TEND	
RF	ERR. CORR CANCEL	0	00	.	1 6 11 16 21 26				

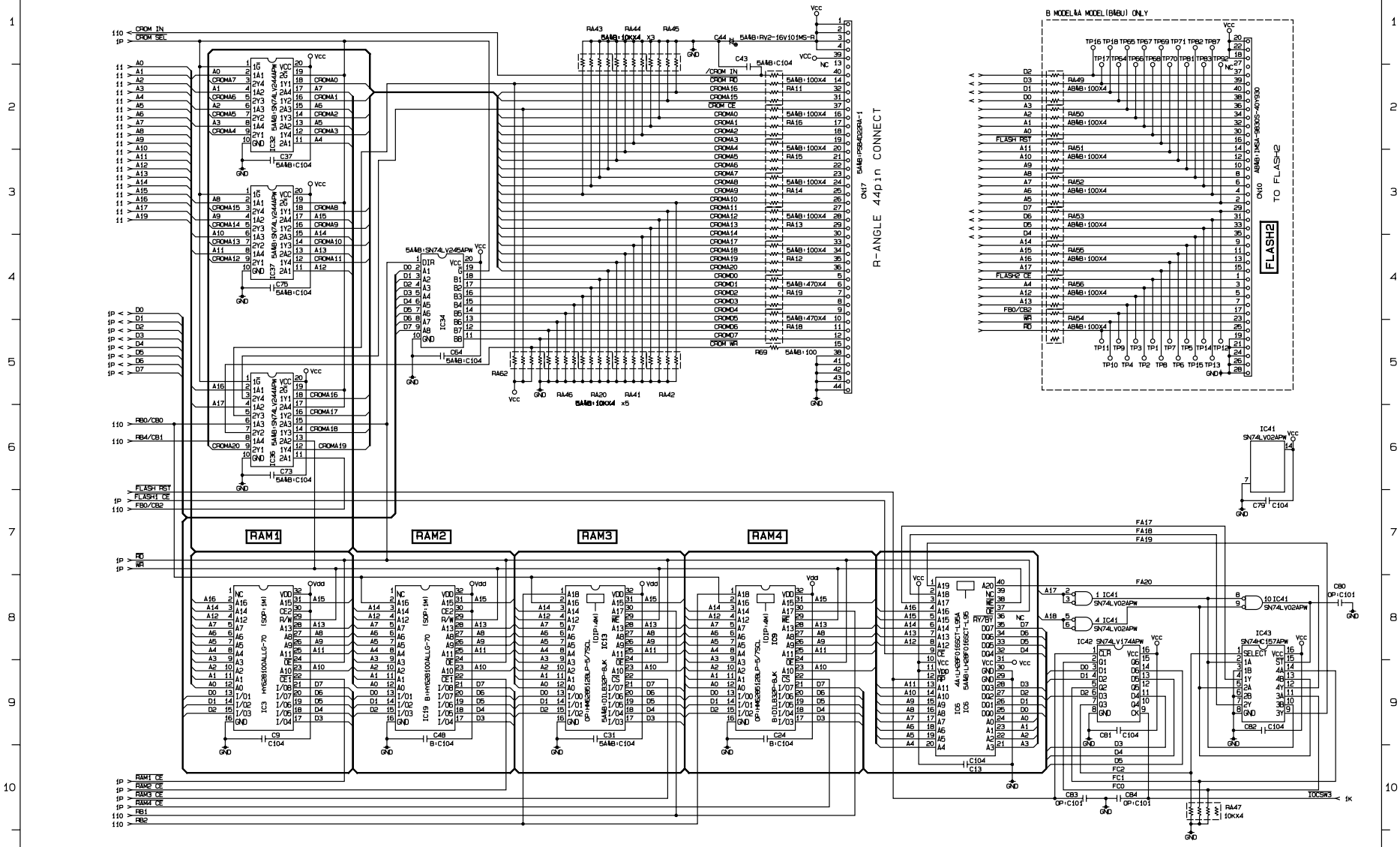
STROKE KEY LAYOUT (*G) Germany

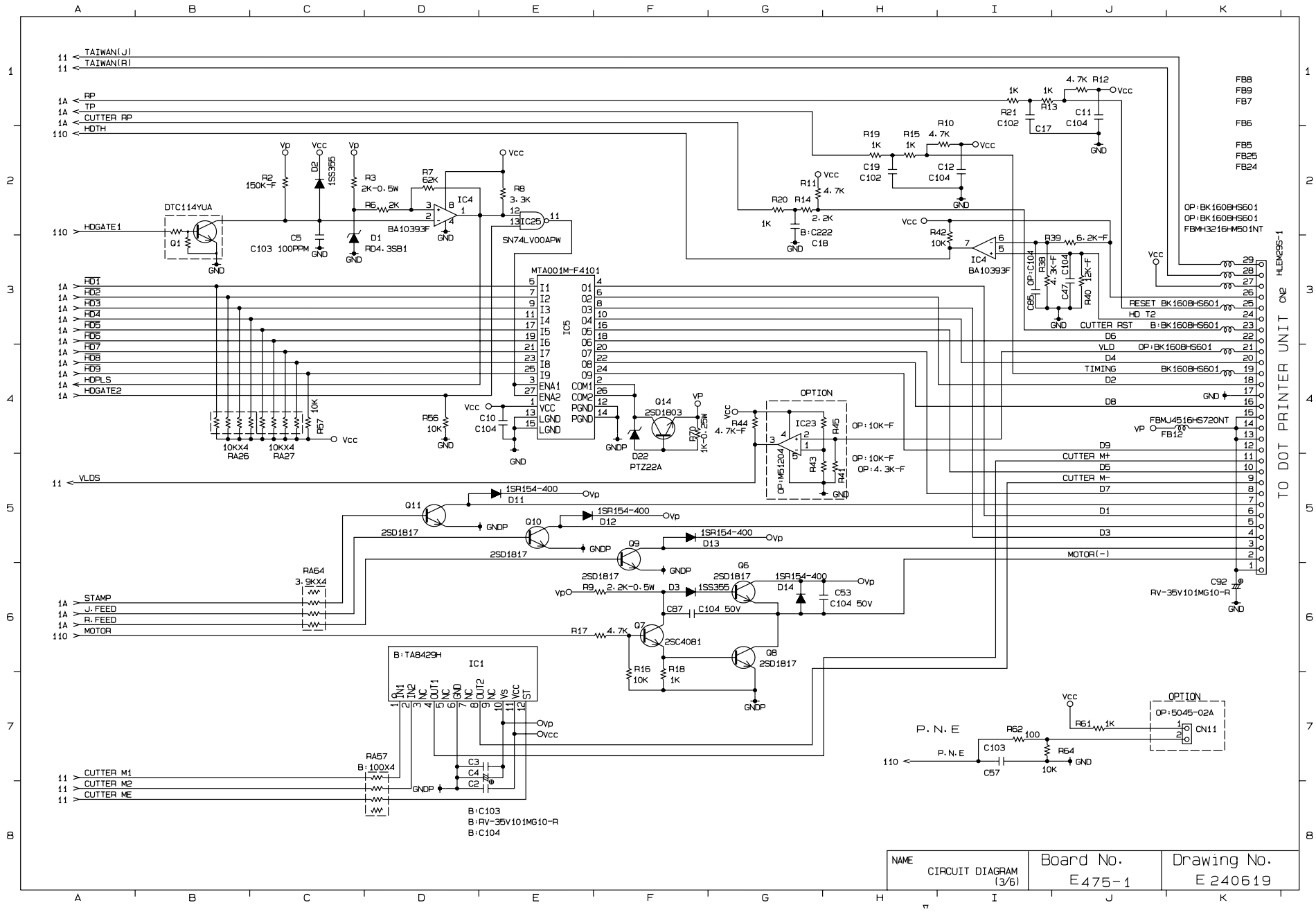
RECEIPT FEED	JOURNAL FEED	C	X/ DATE TIME	OPEN	PRICE	CPN	T/S2	RC	PD
RECEIPT	VALID				5	10	15	CR1	CR2
RECEIPT ON/OFF	#/ NS	7	8	9	4	9	14	CH	CHK/ TEND
%-	PLU	4	5	6	3	8	13	SUB TOTAL	
-		1	2	3	2	7	12	CA/ AMT TEND	
RF	ERR. CORR CANCEL	0	00	.	1	6	11		

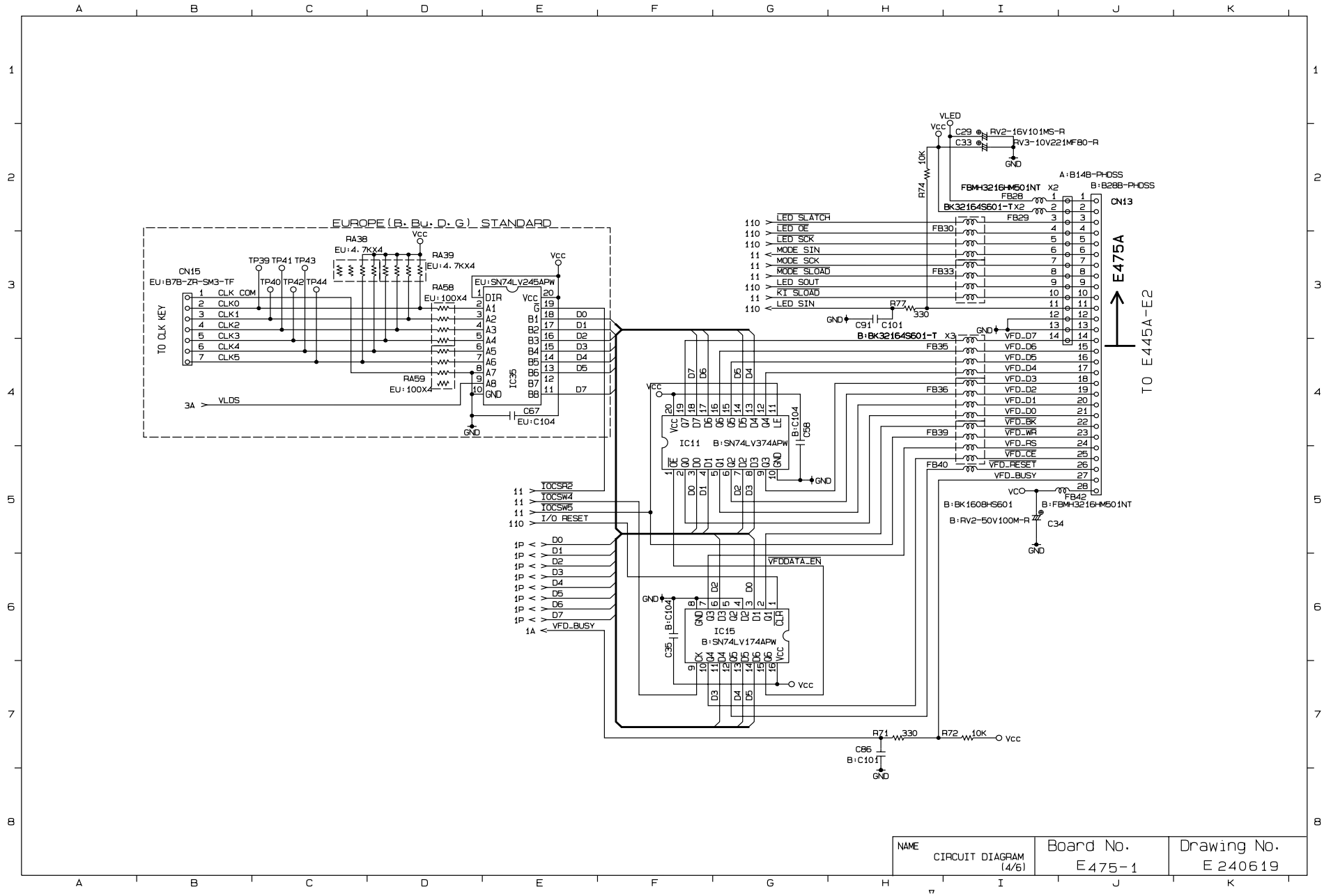
Name	Board No.	Drawing No.
SYSTEM BLOCK DIAGRAM (2/6) CE-7000-1 *B.*D.*G.*Bu	E	E 140337


CE-7000
R/J
DOT PRINTER
M-U420-071
:AUTO CUTTER
P.N.E
VFD
POP-UP DISPLAY
E445B-E2-2
HLW (10+12)pin
HFW
E445B-E2
(VFD)
MAIN DISPLAY
MODE KEY
SFW
28pin
27pin
FPC
E445-E4
STROKE KEY
KEY SHEET
OPTION
MODEM
PC
REMOTE PRINTER
KP
UP-350 or KP-400
OR
RS232C
COM1(RS232C)
DSUB9
E475-1 MAIN BOARD
FLASH
16Mb
MEMORY
FLASH-BOARD
40pin
FLASH
4Mb
SOP
SOP
DIP
DIP
RAM1
1M
RAM2
1M
RAM3
4M
OPTION
RAM4
4M
OPTION
MEMORY
HFW42pin
HFW28pin
POWER BOARD
FLASH
4Mb
FLASH
4Mb
Memory
RAM
16Mb
RAM
2Mb
Memory
DSUB9
COM4
RS232C
or
RS485
RS485 Communication I/F
MODEM
DSUB9
COM5
RS232C
LOAD CURRENT
:50mA
HAND SCANNER
HHS
HHS-15
NOTICE *1
HFW28pin
NOTICE *2
ARCNET BOARD
I/O-PB-14
2pin
ARC-NET Communication I/F
NOTICE *1 HHS can install only one in this MODEL.
NOTICE *2 If POWER BOARD don't installthis MODEL. ARCNET BOARD connect to E475-1.
HAND SCANNER
HHS
HHS-15
LOAD CURRENT
:50mA
NOTICE *1
SCANNER
OR
KP
UP-350 or KP-400
SLIP PRINTER
SLIP
SP-1300
LOAD CURRENT :150mA
E445-CNB
COM2(RS232C)
DSUB9
COM3(RS232C) +24V Slip
DSUB9
FFC
HFW30pin
SLIP
SP-1300
KP
UP-350 or KP-400
SCALE
OPTION
44pin
Reset SW
3pin
3pin Boardin
3pin Boardin
3pin Boardin
2pin
FLASH PAC
OPTION
PAC-9
MEMORY
DRAWER
DRAWER
DRAWER
DRAWER
OPTION
OPTION
OPTION
OPTION
BATTERY
U.S.:DL-2417 or DL-3616
CANADA:DL-2517 or DL-3616
E445-S1
AC SW
POWER CODE
PS204
AC120V
50-60Hz
0.7A
STROKE KEY LAYOUT USA, Canada
RECEIPT FEED
JOURNAL FEED
RECEIPT VALID
RECEIPT ON/OFF
NS
%-
-
RF
PLU
ERR. CORR CANCEL
C
X/FOR DATE TIME
CLK
7 8 9
4 5 6
1 2 3
0 00 .
PRICE
T/S1
T/S2
OPEN
RC
PD
CR1
CR2
CH
CHK/ TEND
SUB TOTAL
CA/ AMT TEND
Name
SYSTEM BLOCK DIAGRAM (2/6)
CE-7000*C.*L
Board No.
E
Drawing No.
E 140329

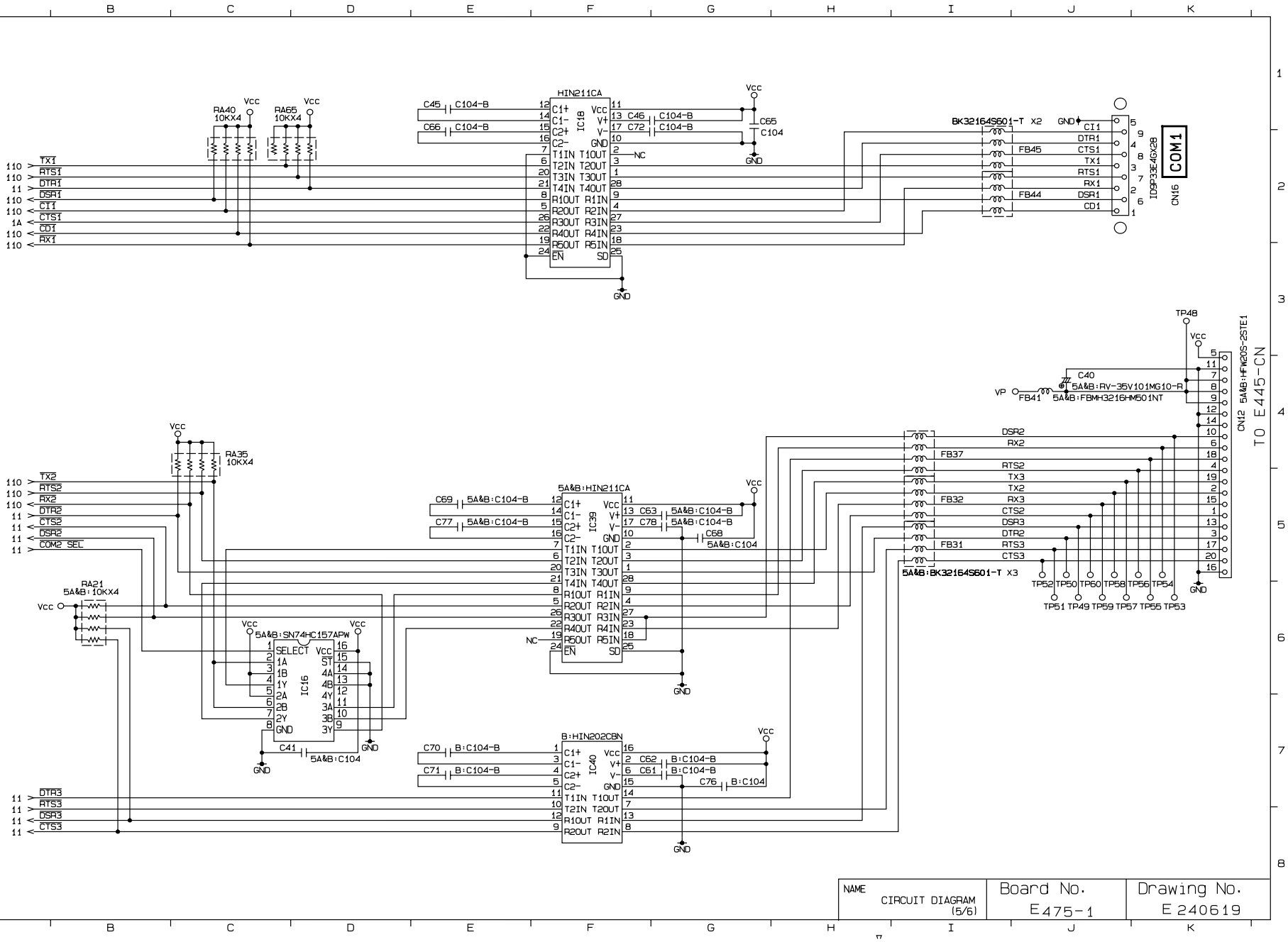

*:Power source is Vcc
IC10
UPD784215GC-084-8EU
Name
CIRCUIT DIAGRAM
(1/6)
Board No.
E 475-1
Drawing No.
E 140330

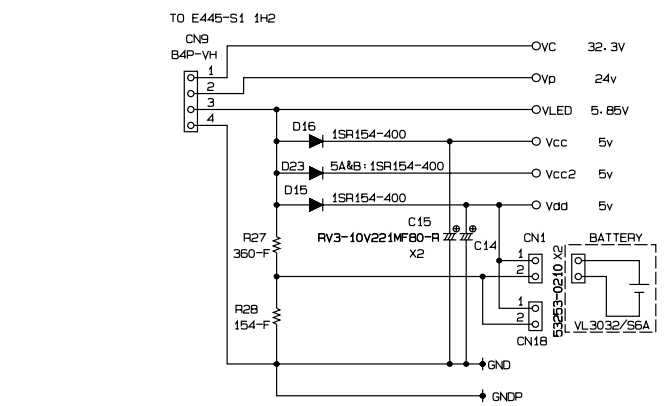

RAM1
RAM2
RAM3
RAM4
R-ANGLE 44pin CONNECT
CN17
FLASH2
TO FLASH2
B MODEL&A MODEL(B4BU) ONLY
CROM IN
CROM SEL
FLASH RST
FLASH1 CE
FLASH2 CE
RB0/CB0
RB4/CB1
RAM1 CE
RAM2 CE
RAM3 CE
RAM4 CE
RB1
RB2
RD
WR
FA17
FA18
FA19
FA20
IOCSW3
Name
CIRCUIT DIAGRAM
(2/6)
Board No.
E 475-1
Drawing No.
E 140330

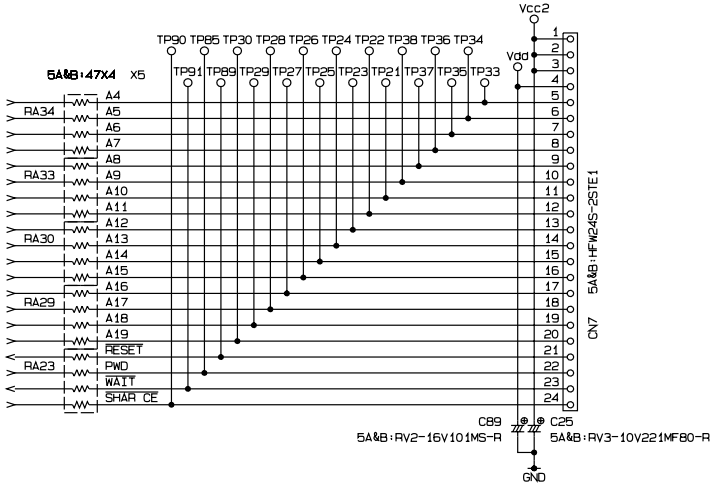

TAIWAN(J)
TAIWAN(R)
RP
TP
CUTTER RP
HOTH
HDGATE1
DTC114YUA
Q1
R2 150K-F
D2 1SS355
R3 2K-0.5W
R6 2K
C5 C103 100PPM
D1 RD4.3SB1
R7 62K
IC4 BA10393F
R8 3.3K
IC25 SN74LV00APW
HD1
HD2
HD3
HD4
HD5
HD6
HD7
HD8
HD9
HDPLS
HDGATE2
10KX4 RA26
10KX4 RA27
R57 10K
R56 10K
C10 C104
MTA001M-F4101
IC5
VLDS
Q11 2SD1817
Q10 2SD1817
Q9 2SD1817
D11 1SR154-400
D12 1SR154-400
D13 1SR154-400
Q14 2SD1803
D22 PTZ22A
R70 1K-0.25W
OPTION
IC23 M51204
R44 4.7K-F
R45 OP:10K-F
R43 OP:10K-F
R41 OP:4.3K-F
RA64 3.9KX4
STAMP
J.FEED
R.FEED
MOTOR
Q6 2SD1817
D14 1SR154-400
R9 2.2K-0.5W
D3 1SS355
C87 C104 50V
C53 C104 50V
Q7 2SC4081
R17 4.7K
Q8 2SD1817
R16 10K
R18 1K
B:TA8429H
IC1
RA57 B:100X4
CUTTER M1
CUTTER M2
CUTTER ME
C3
C4
C2
B:C103
B:RV-35V101MG10-R
B:C104
R11 4.7K
R20 1K
R14 2.2K
B:C222
C18
R19 1K
R15 1K
R10 4.7K
C19 C102
C12 C104
R21 1K
R13 1K
R12 4.7K
C102
C17
C11 C104
R42 10K
IC4 BA10393F
R39 6.2K-F
R38 4.3K-F
C47
R40 12K-F
C85 OP:C104
FB8
FB9
FB7
FB6
FB5
FB25
FB24
OP:BK1608HS601
OP:BK1608HS601
FBMH3216HM501NT
RESET BK1608HS601
HD T2
CUTTER RST B:BK1608HS601
D6
VLD OP:BK1608HS601
D4
TIMING BK1608HS601
D2
D8
FBMJ4516HS720NT
FB12
D9
CUTTER M+
D5
CUTTER M-
D7
D1
D3
MOTOR(-)
C92 RV-35V101MG10-R
TO DOT PRINTER UNIT CN2 HLEM295-1
P.N.E
R62 100
R61 1K
R64 10K
C103
C57
OPTION
OP:5045-02A
CN11
NAME CIRCUIT DIAGRAM (3/6)
Board No. E475-1
Drawing No. E240619

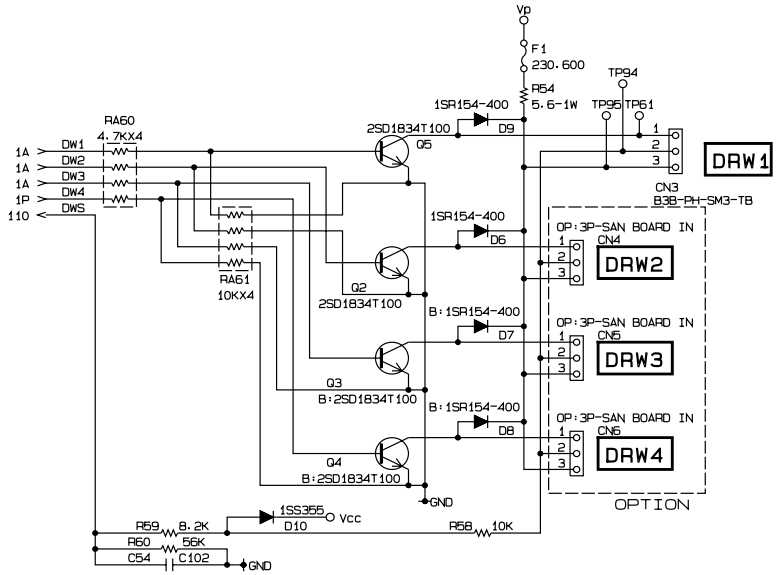


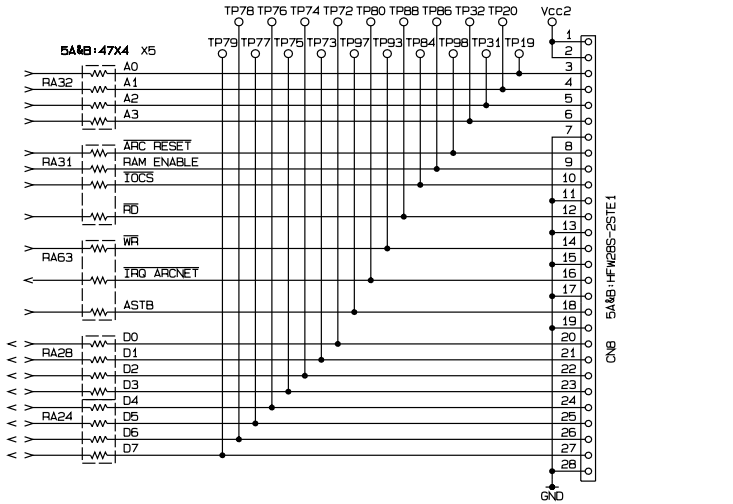
NAME	Board No.	Drawing No.
CIRCUIT DIAGRAM (4/6)	E475-1	E240619


HIN211CA
IC18
C45 C104-B
C66 C104-B
C65 C104
C104
C46 C104-B
C72 C104-B
RA40 10KX4
RA65 10KX4
Vcc
GND
NC
TX1
RTS1
DTR1
DSR1
CI1
CTS1
CD1
RX1
BK32164S601-T X2
FB45
FB44
DSR1
CTS1
TX1
RTS1
RX1
CI1
DTR1
CD1
IDSP33E4GX2B
CN16
COM1
TP48
C40
5A&B:RV-35V101MG10-R
FB41
5A&B:FBMH3216HM501NT
VP
CN12 5A&B:HFW20S-2STE1
TO E445-CN
TX2
RTS2
RX2
DTR2
CTS2
DSR2
COM2 SEL
RA35 10KX4
5A&B:HIN211CA
IC39
C69 5A&B:C104-B
C77 5A&B:C104-B
C63 5A&B:C104-B
C78 5A&B:C104-B
C68 5A&B:C104
5A&B:C104
DSR2
RX2
FB37
RTS2
TX3
TX2
RX3
FB32
CTS2
DSR3
DTR2
RTS3
FB31
CTS3
5A&B:BK32164S601-T X3
TP52 TP50 TP60 TP58 TP56 TP54
TP51 TP49 TP59 TP57 TP55 TP53
RA21
5A&B:10KX4
5A&B:SN74HC157APW
IC16
SELECT
C41 5A&B:C104
B:HIN202CBN
IC40
C70 B:C104-B
C71 B:C104-B
C62 B:C104-B
C61 B:C104-B
C76 B:C104
DTR3
RTS3
DSR3
CTS3
NAME
CIRCUIT DIAGRAM (5/6)
Board No.
E475-1
Drawing No.
E240619

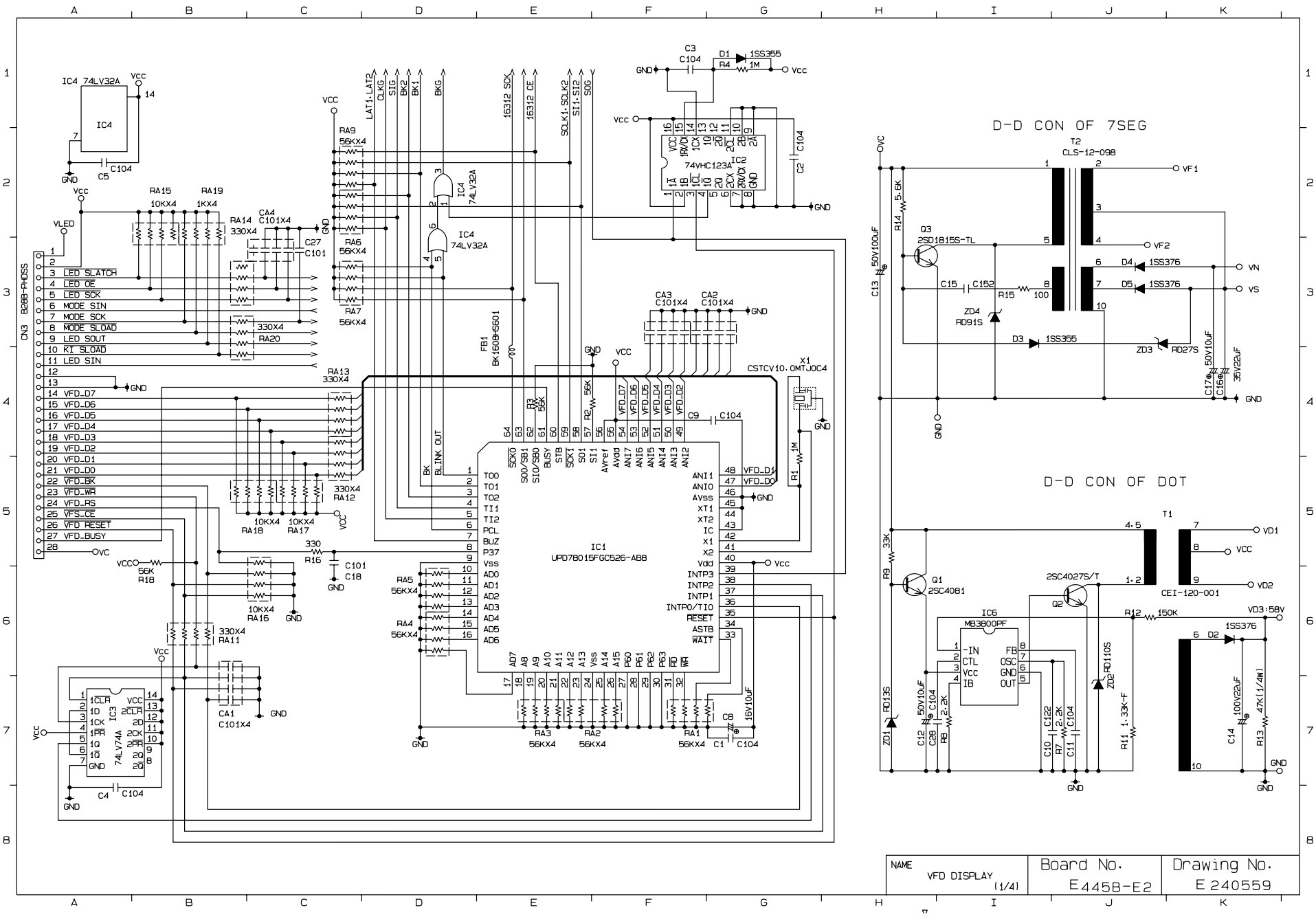


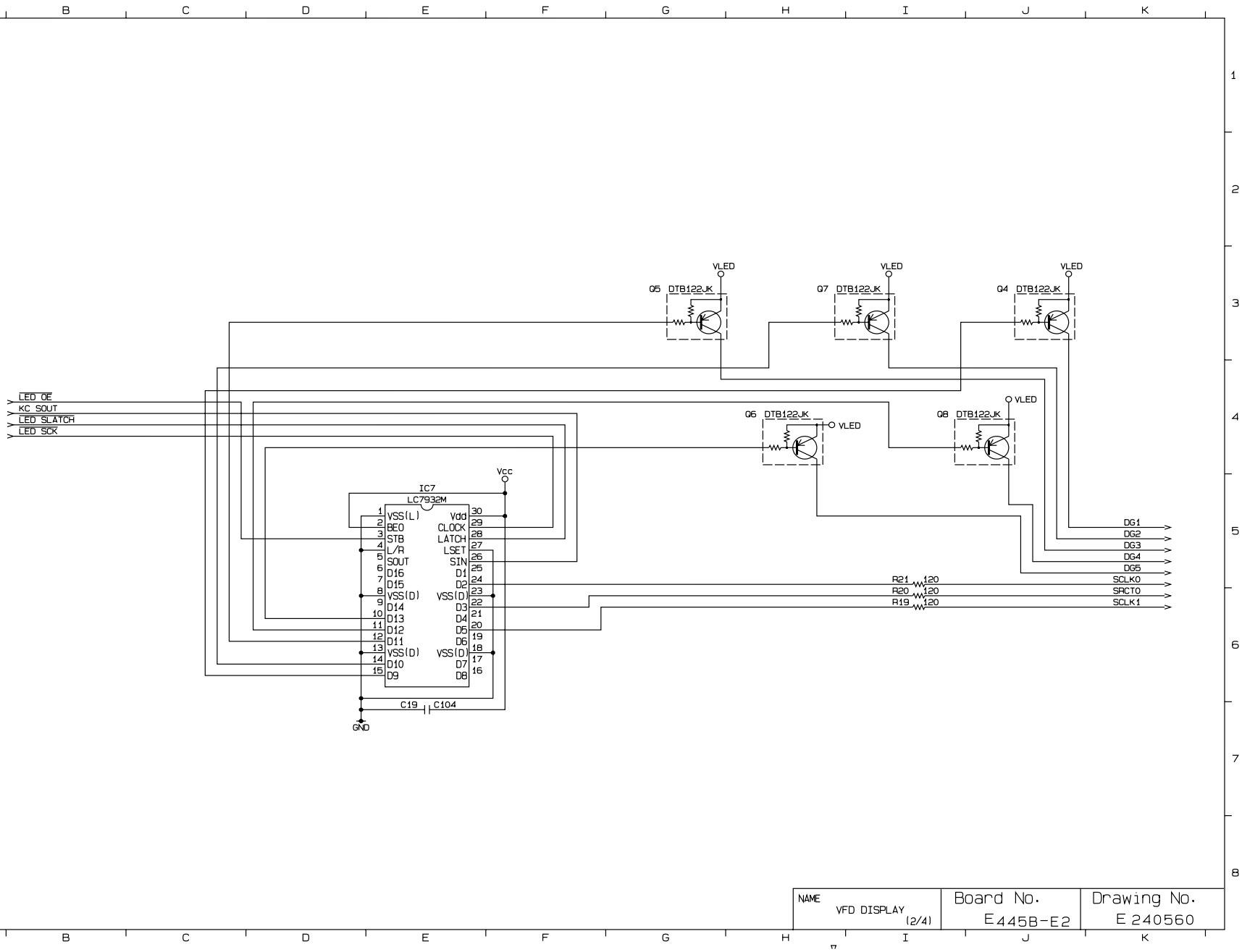


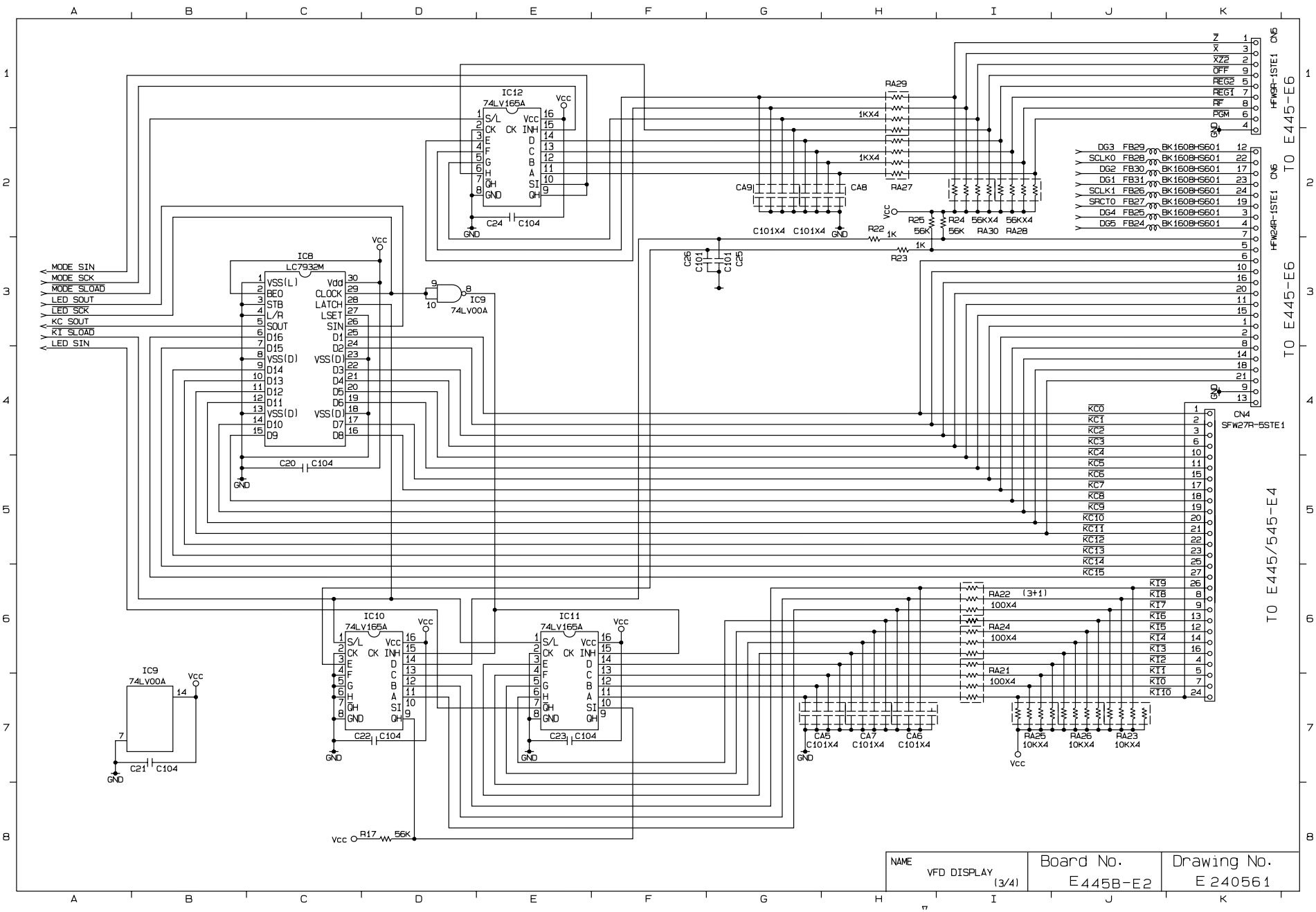


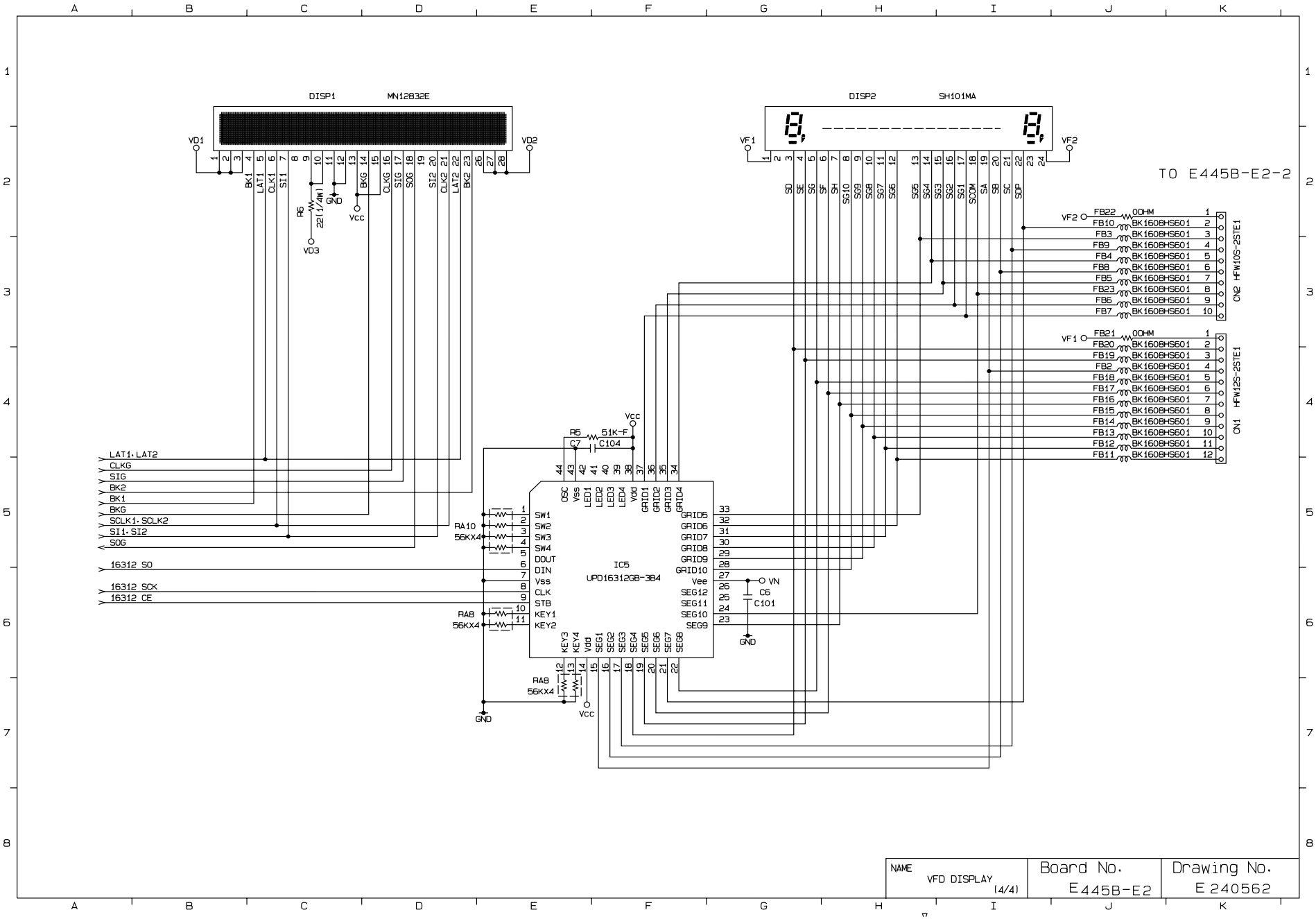


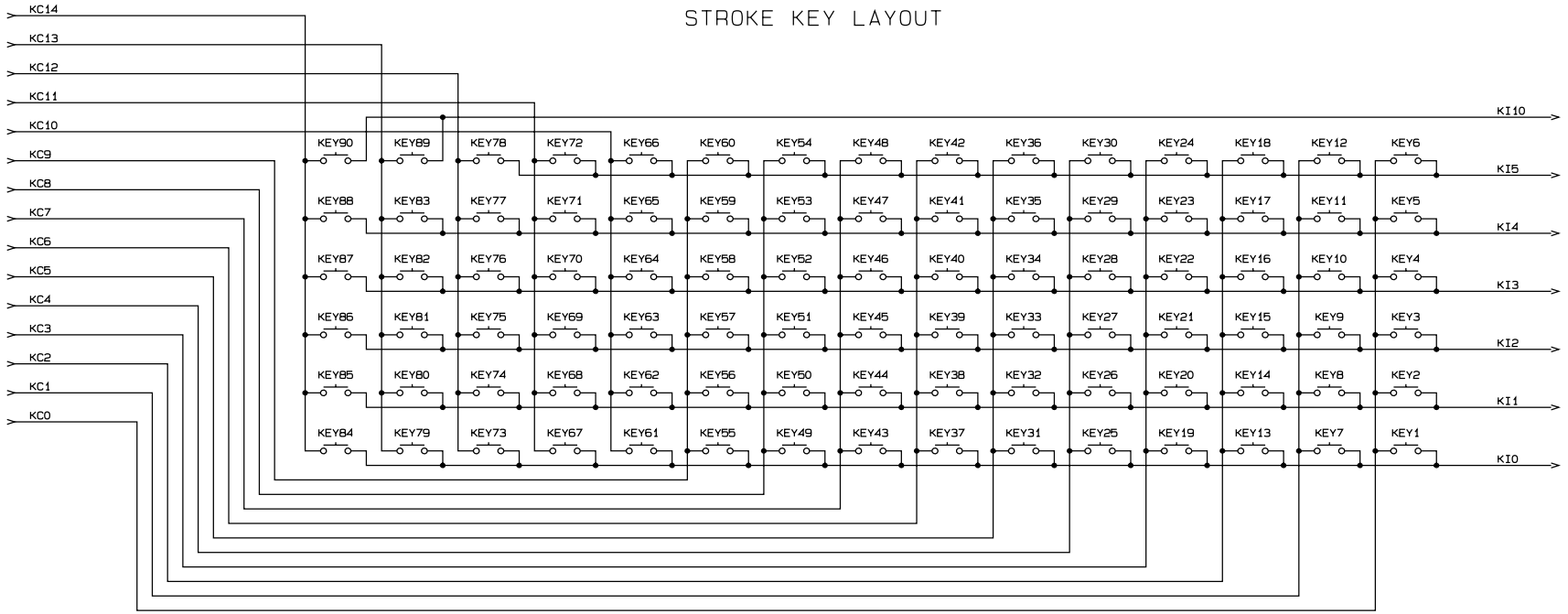
NAME	Board No.	Drawing No.
CIRCUIT DIAGRAM (6/6)	E475-1	E240619


D-D CON OF 7SEG
D-D CON OF DOT
IC1
UPD78015FGC526-AB8
CN3
B28B-PHDSS
LED SLATCH
LED OE
LED SCK
MODE SIN
MODE SCK
MODE SLOAD
LED SOUT
KI SLOAD
LED SIN
VFD_D7
VFD_D6
VFD_D5
VFD_D4
VFD_D3
VFD_D2
VFD_D1
VFD_D0
VFD_BK
VFD_WR
VFD_RS
VFS_CE
VFD_RESET
VFD_BUSY
CSTCV10.0MTJ0C4
T2
CLS-12-098
VF1
VF2
VN
VS
T1
CEI-120-001
VD1
VD2
VD3:58V
NAME
VFD DISPLAY
(1/4)
Board No.
E445B-E2
Drawing No.
E240559

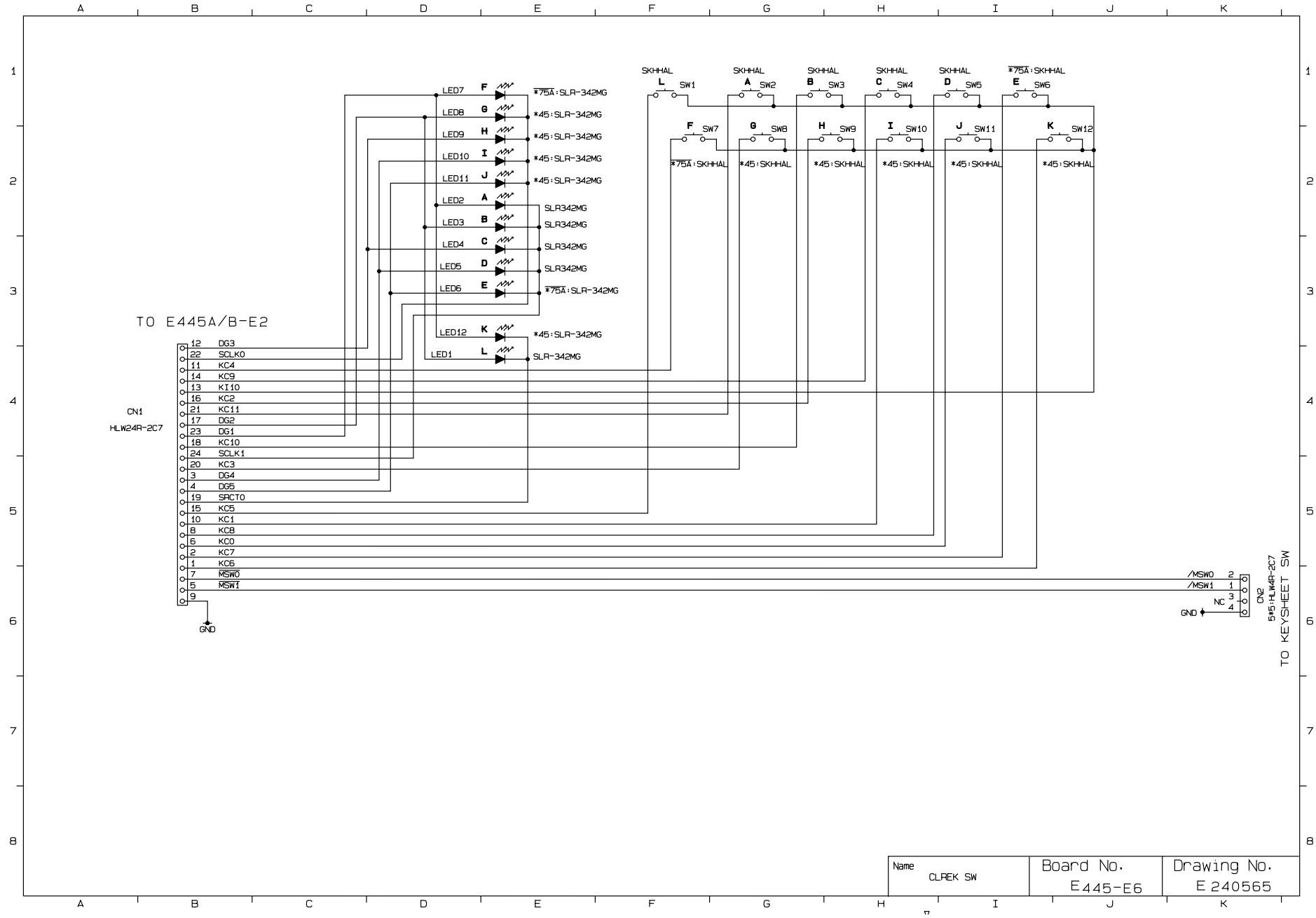

VLED
Q5 DTB122JK
Q7 DTB122JK
Q4 DTB122JK
Q6 DTB122JK
Q8 DTB122JK
LED OE
KC SOUT
LED SLATCH
LED SCK
Vcc
IC7
LC7932M
VSS(L)
BEO
STB
L/R
SOUT
D16
D15
VSS(D)
D14
D13
D12
D11
VSS(D)
D10
D9
Vdd
CLOCK
LATCH
LSET
SIN
D1
D2
VSS(D)
D3
D4
D5
D6
VSS(D)
D7
D8
C19
C104
GND
R21 120
R20 120
R19 120
DG1
DG2
DG3
DG4
DG5
SCLKO
SRCTO
SCLK1
NAME
VFD DISPLAY (2/4)
Board No.
E445B-E2
Drawing No.
E240560

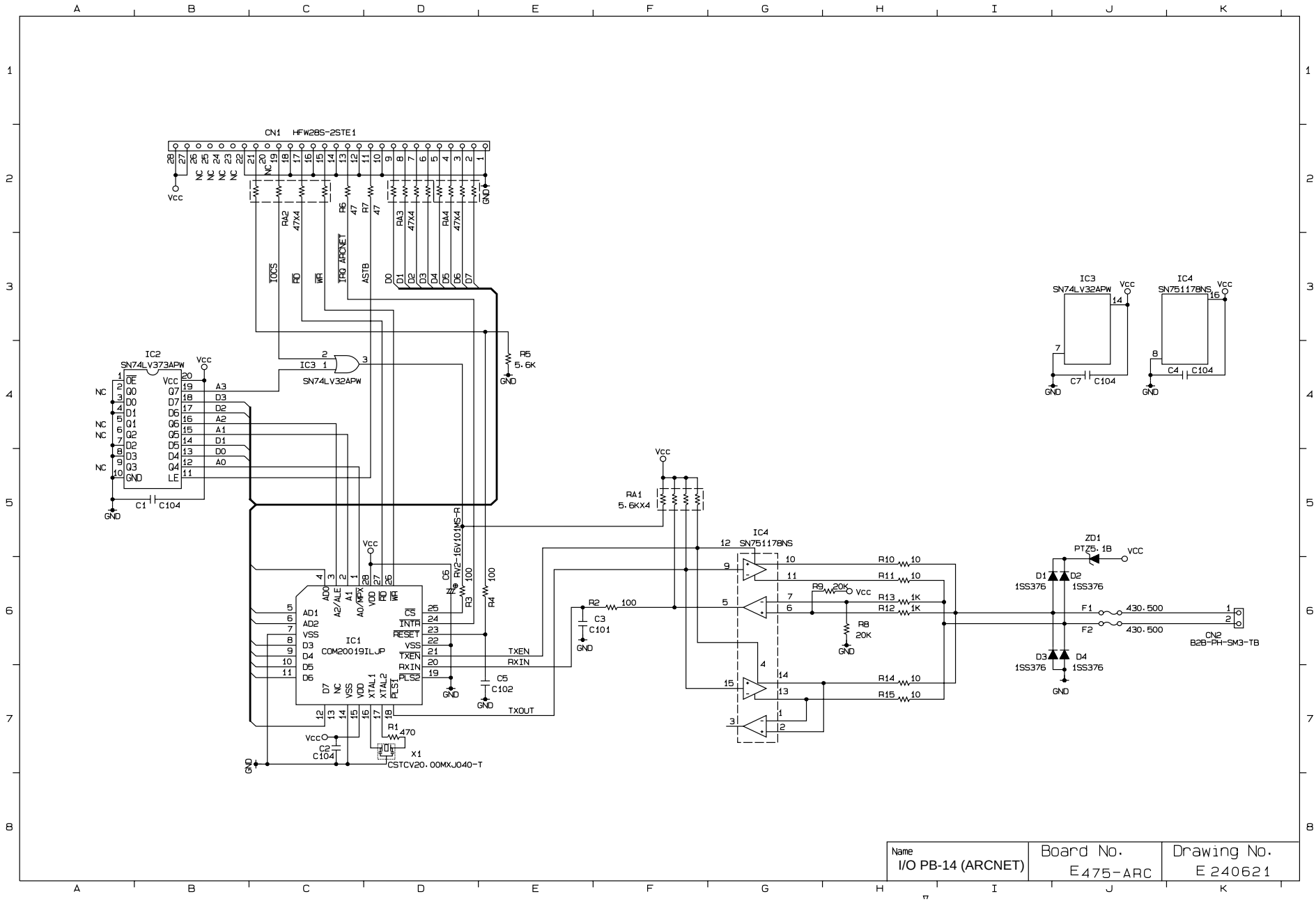

MODE SIN
MODE SCK
MODE SLOAD
LED SOUT
LED SCK
KC SOUT
KI SLOAD
LED SIN
IC8
LC7932M
IC9
74LV00A
IC10
74LV165A
IC11
74LV165A
IC12
74LV165A
RA29
1KX4
RA27
CA8
CA9
C101X4
RA28
RA30
56KX4
R24
56K
R25
R22
1K
R23
C24
C104
C20
C21
C22
C23
C26
C101
C25
GND
Vcc
R17
CN5
HFW9R-1STE1
CN6
HFW24R-1STE1
BK1608HS601
DG3 FB29
SCLK0 FB28
DG2 FB30
DG1 FB31
SCLK1 FB26
SRCT0 FB27
DG4 FB25
DG5 FB24
CN4
SFW27R-5STE1
KC0
KC1
KC2
KC3
KC4
KC5
KC6
KC7
KC8
KC9
KC10
KC11
KC12
KC13
KC14
KC15
KI9
KI8
KI7
KI6
KI5
KI4
KI3
KI2
KI1
KI0
KI10
RA22 (3+1)
100X4
RA24
100X4
RA21
100X4
CA5
CA7
CA6
RA25
10KX4
RA26
10KX4
RA23
10KX4
TO E445-E6
TO E445-E6
TO E445/545-E4
NAME
VFD DISPLAY (3/4)
Board No.
E445B-E2
Drawing No.
E240561

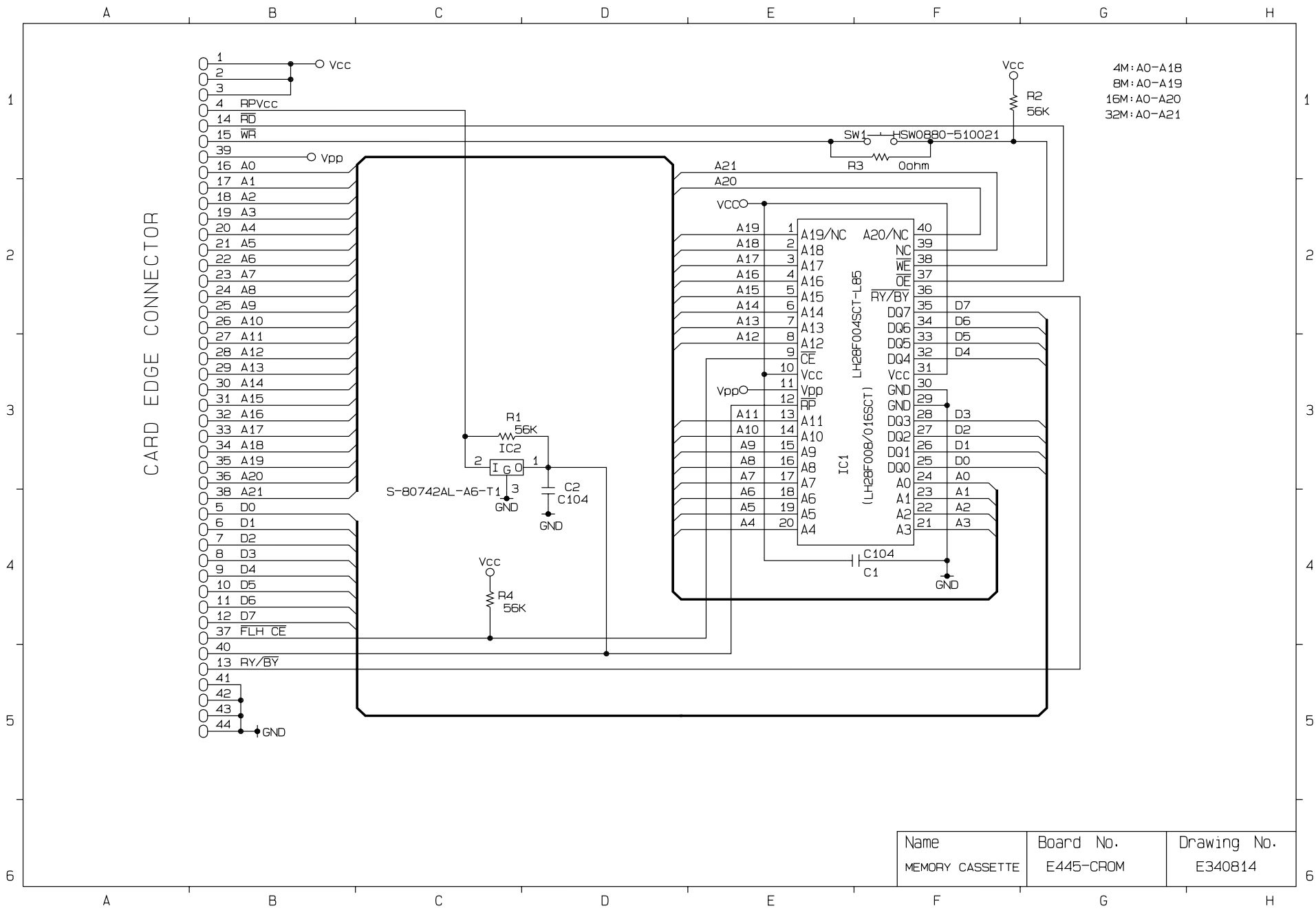

DISP1 MN12832E
DISP2 SH101MA
TO E445B-E2-2
IC5
UPD16312GB-3B4
CN2 HFW10S-2STE1
CN1 HFW12S-2STE1
LAT1.LAT2
CLKG
SIG
BK2
BK1
BKG
SCLK1.SCLK2
SI1.SI2
SOG
16312 SO
16312 SCK
16312 CE
NAME
VFD DISPLAY (4/4)
Board No.
E445B-E2
Drawing No.
E240562


STROKE KEY LAYOUT
KC14
KC13
KC12
KC11
KC10
KC9
KC8
KC7
KC6
KC5
KC4
KC3
KC2
KC1
KC0
KEY90 KEY89 KEY78 KEY72 KEY66 KEY60 KEY54 KEY48 KEY42 KEY36 KEY30 KEY24 KEY18 KEY12 KEY6
KEY88 KEY83 KEY77 KEY71 KEY65 KEY59 KEY53 KEY47 KEY41 KEY35 KEY29 KEY23 KEY17 KEY11 KEY5
KEY87 KEY82 KEY76 KEY70 KEY64 KEY58 KEY52 KEY46 KEY40 KEY34 KEY28 KEY22 KEY16 KEY10 KEY4
KEY86 KEY81 KEY75 KEY69 KEY63 KEY57 KEY51 KEY45 KEY39 KEY33 KEY27 KEY21 KEY15 KEY9 KEY3
KEY85 KEY80 KEY74 KEY68 KEY62 KEY56 KEY50 KEY44 KEY38 KEY32 KEY26 KEY20 KEY14 KEY8 KEY2
KEY84 KEY79 KEY73 KEY67 KEY61 KEY55 KEY49 KEY43 KEY37 KEY31 KEY25 KEY19 KEY13 KEY7 KEY1
KI10
KI5
KI4
KI3
KI2
KI1
KI0

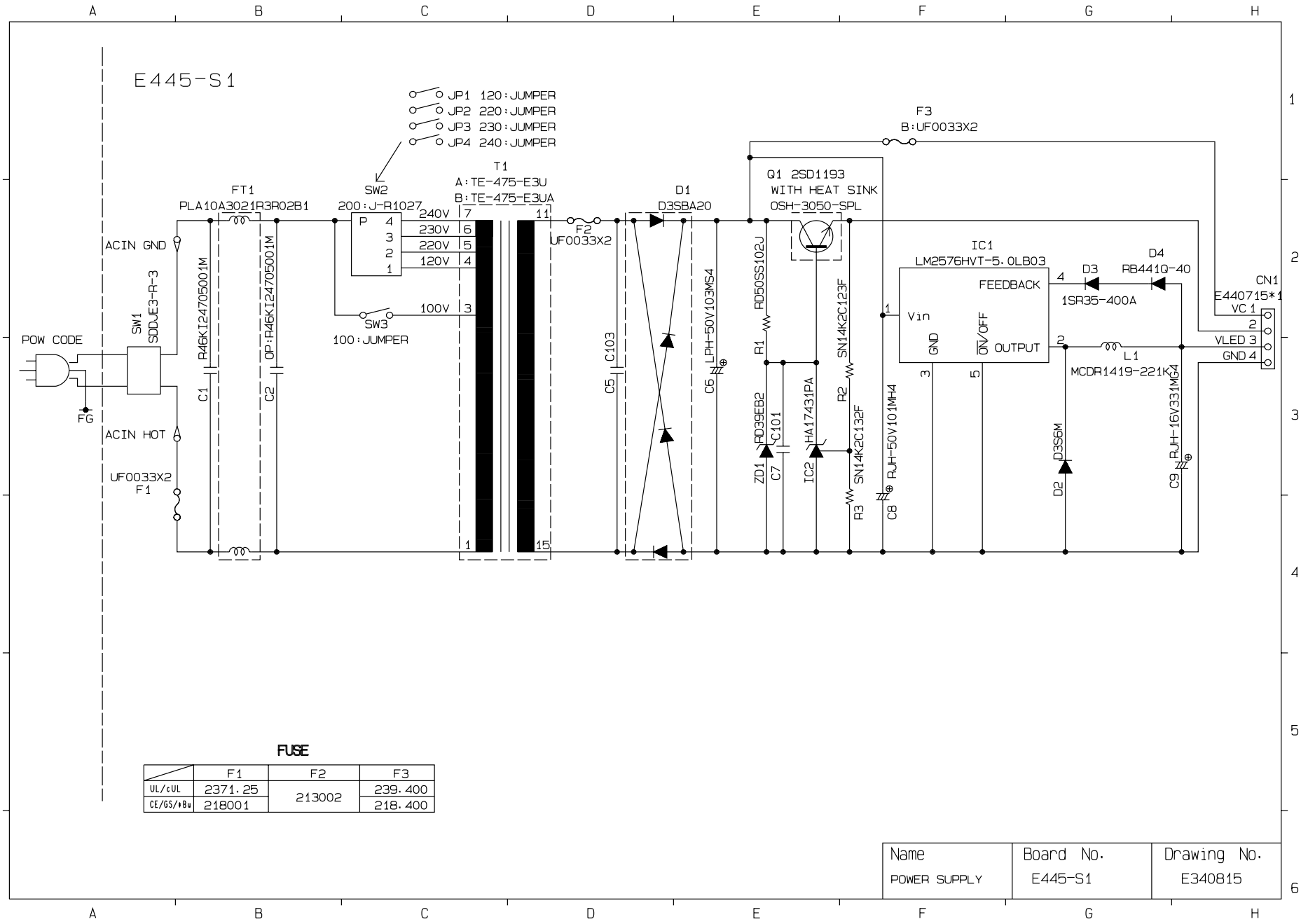
Name	Board No.	Drawing No.
STROKE KEY	E445-E4	E240563


TO E445A/B-E2
CN1
HLW24R-2C7
12 DG3
22 SCLK0
11 KC4
14 KC9
13 KI10
16 KC2
21 KC11
17 DG2
23 DG1
18 KC10
24 SCLK1
20 KC3
3 DG4
4 DG5
19 SRCT0
15 KC5
10 KC1
8 KC8
6 KC0
2 KC7
1 KC6
7 /MSW0
5 /MSW1
9
GND
LED7 F */75A:SLR-342MG
LED8 G *45:SLR-342MG
LED9 H *45:SLR-342MG
LED10 I *45:SLR-342MG
LED11 J *45:SLR-342MG
LED2 A SLR342MG
LED3 B SLR342MG
LED4 C SLR342MG
LED5 D SLR342MG
LED6 E */75A:SLR-342MG
LED12 K *45:SLR-342MG
LED1 L SLR-342MG
SKHHAL L SW1
SKHHAL A SW2
SKHHAL B SW3
SKHHAL C SW4
SKHHAL D SW5
*/75A:SKHHAL E SW6
F SW7 */75A:SKHHAL
G SW8 *45:SKHHAL
H SW9 *45:SKHHAL
I SW10 *45:SKHHAL
J SW11 *45:SKHHAL
K SW12 *45:SKHHAL
/MSW0 2
/MSW1 1
NC 3
GND 4
CN2
5*5:HLW4R-2C7
TO KEYSHEET SW
Name CLREK SW
Board No. E445-E6
Drawing No. E240565


CN1 HFW28S-2STE1
IC1 COM20019ILJP
IC2 SN74LV373APW
IC3 SN74LV32APW
IC4 SN751178NS
RA1 5.6KX4
RA2 47X4
RA3 47X4
RA4 47X4
R1 470
R2 100
R3 100
R4 100
R5 5.6K
R8 20K
R9 20K
R10 10
R11 10
R12 1K
R13 1K
R14 10
R15 10
C1 C104
C2 C104
C3 C101
C4 C104
C5 C102
C7 C104
RV2-16V101MS-R
X1 CSTCV20.00MXJ040-T
ZD1 PTZ5.1B
D1 1SS376
D2 1SS376
D3 1SS376
D4 1SS376
F1 430.500
F2 430.500
CN2 B2B-PH-SM3-TB
TXEN
RXIN
TXOUT
Vcc
GND
Name
I/O PB-14 (ARCNET)
Board No.
E475-ARC
Drawing No.
E240621



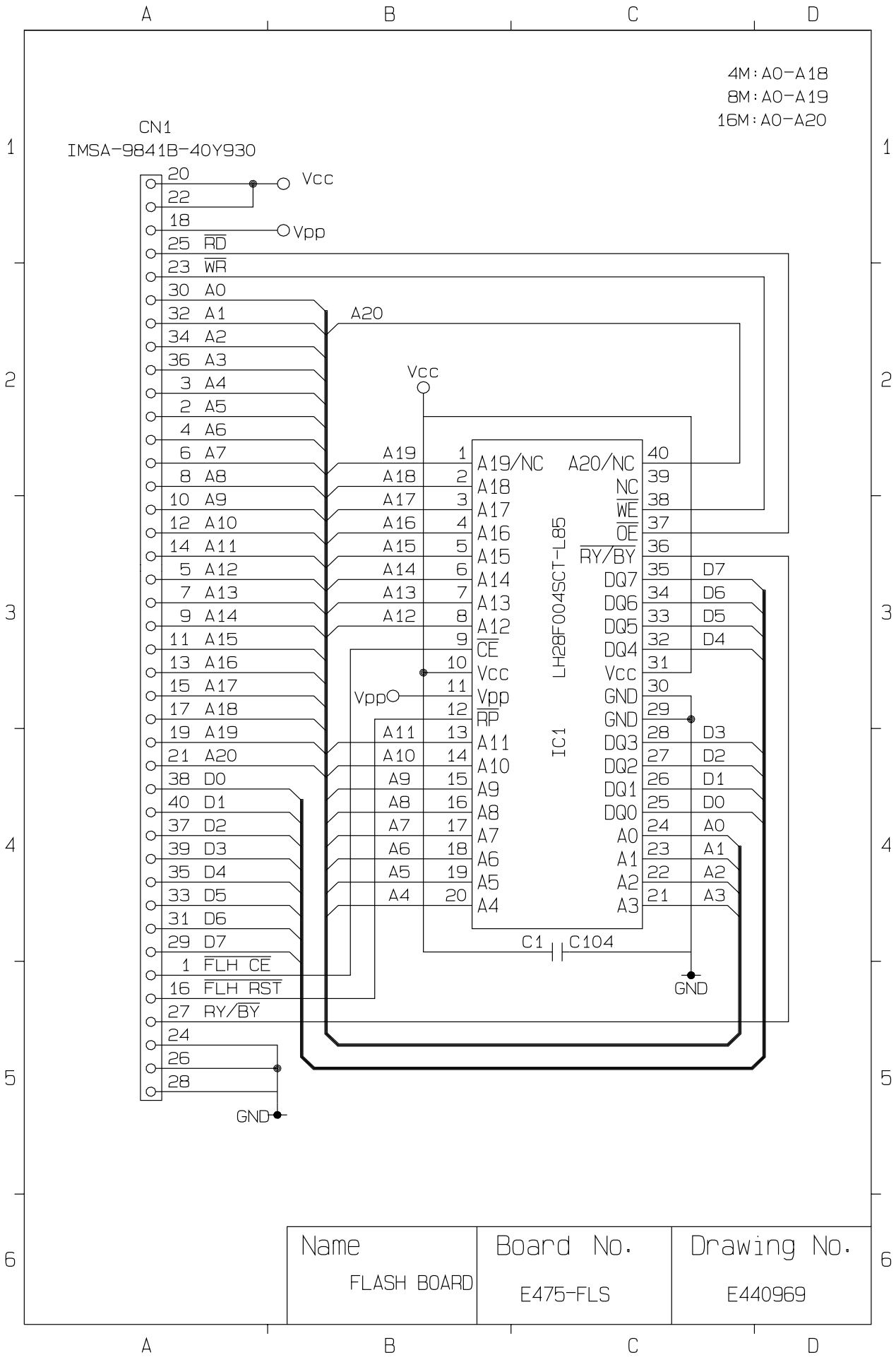
Name	Board No.	Drawing No.
MEMORY CASSETTE	E445-CROM	E340814

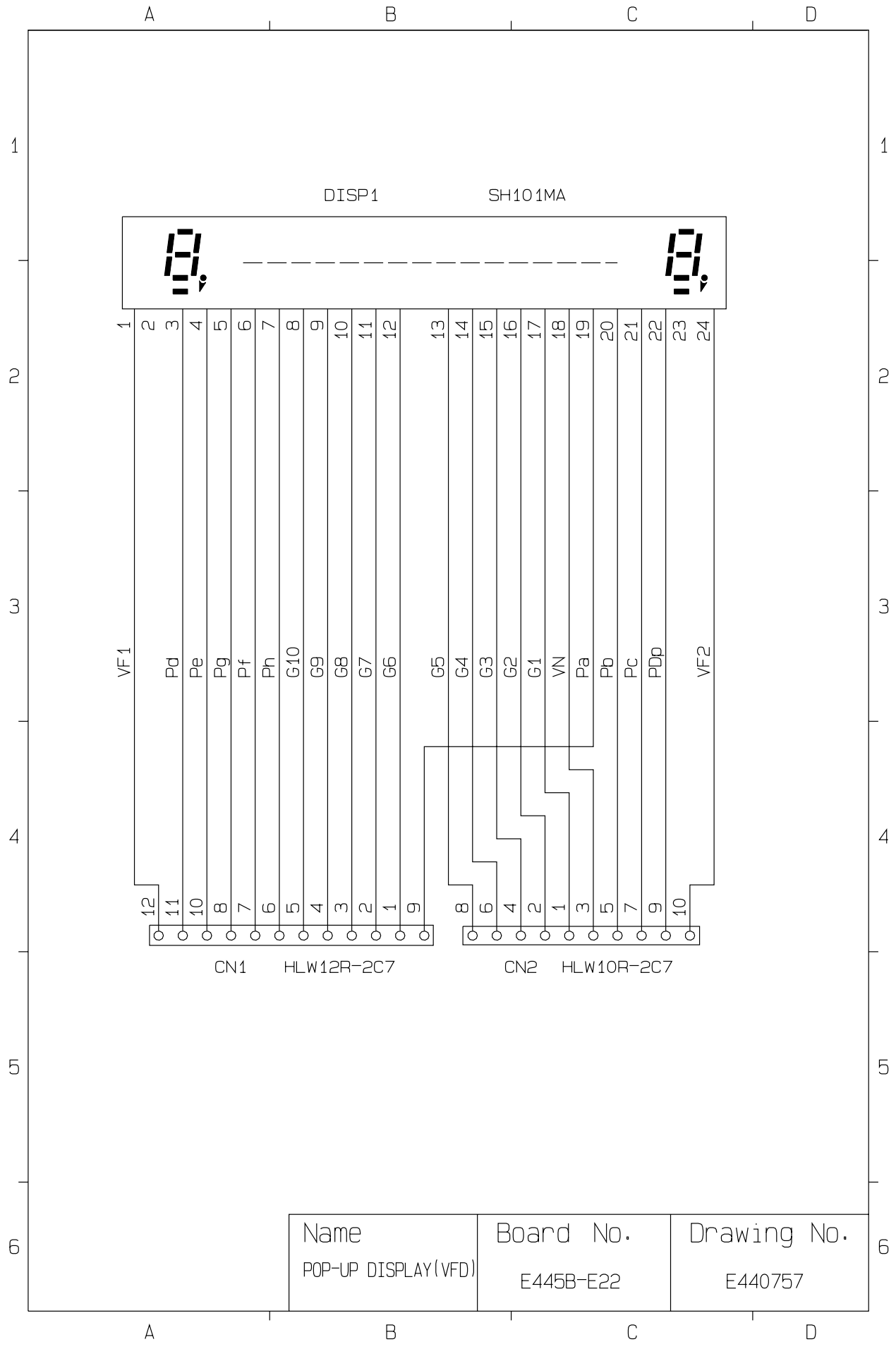


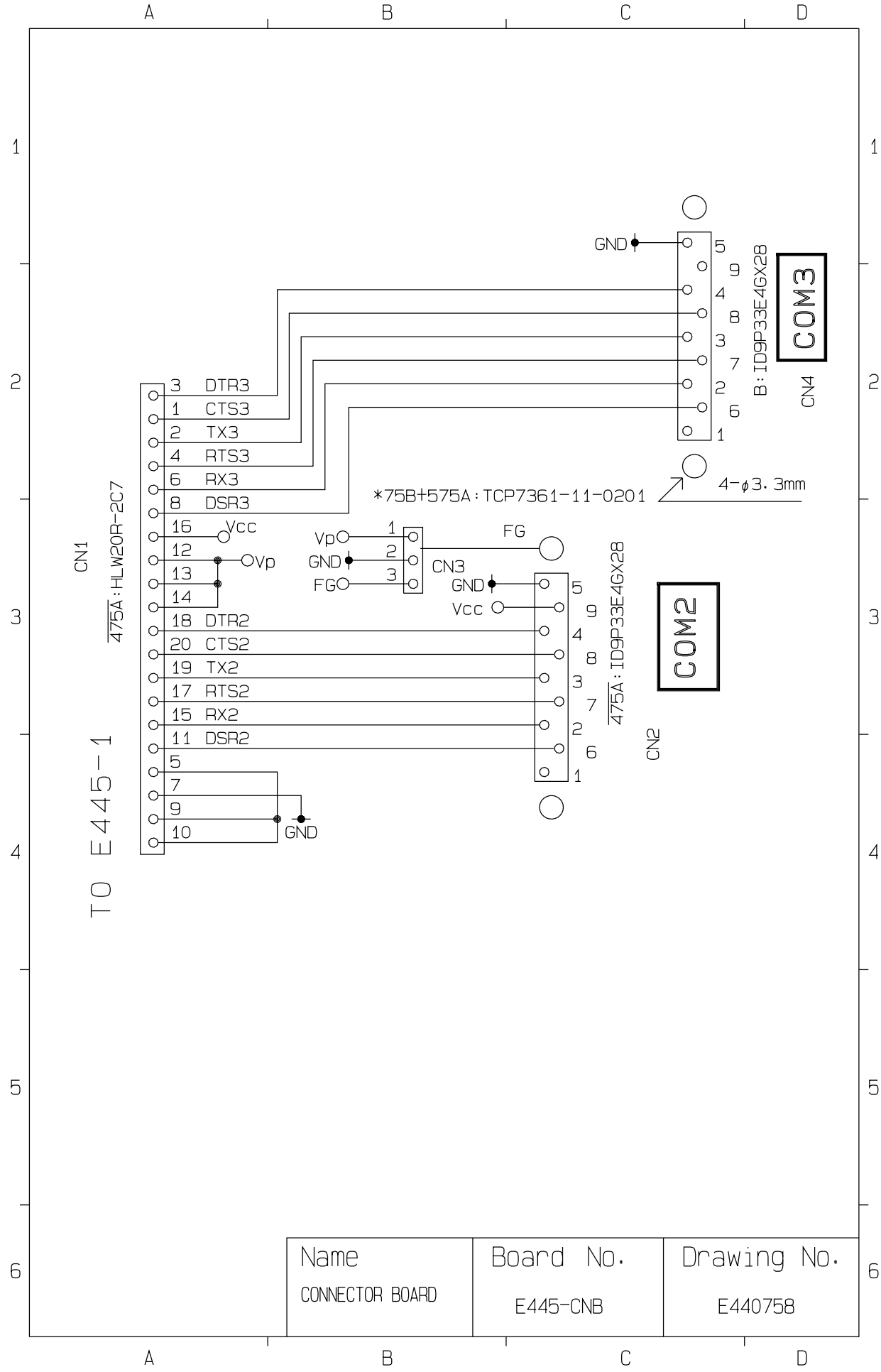
FUSE

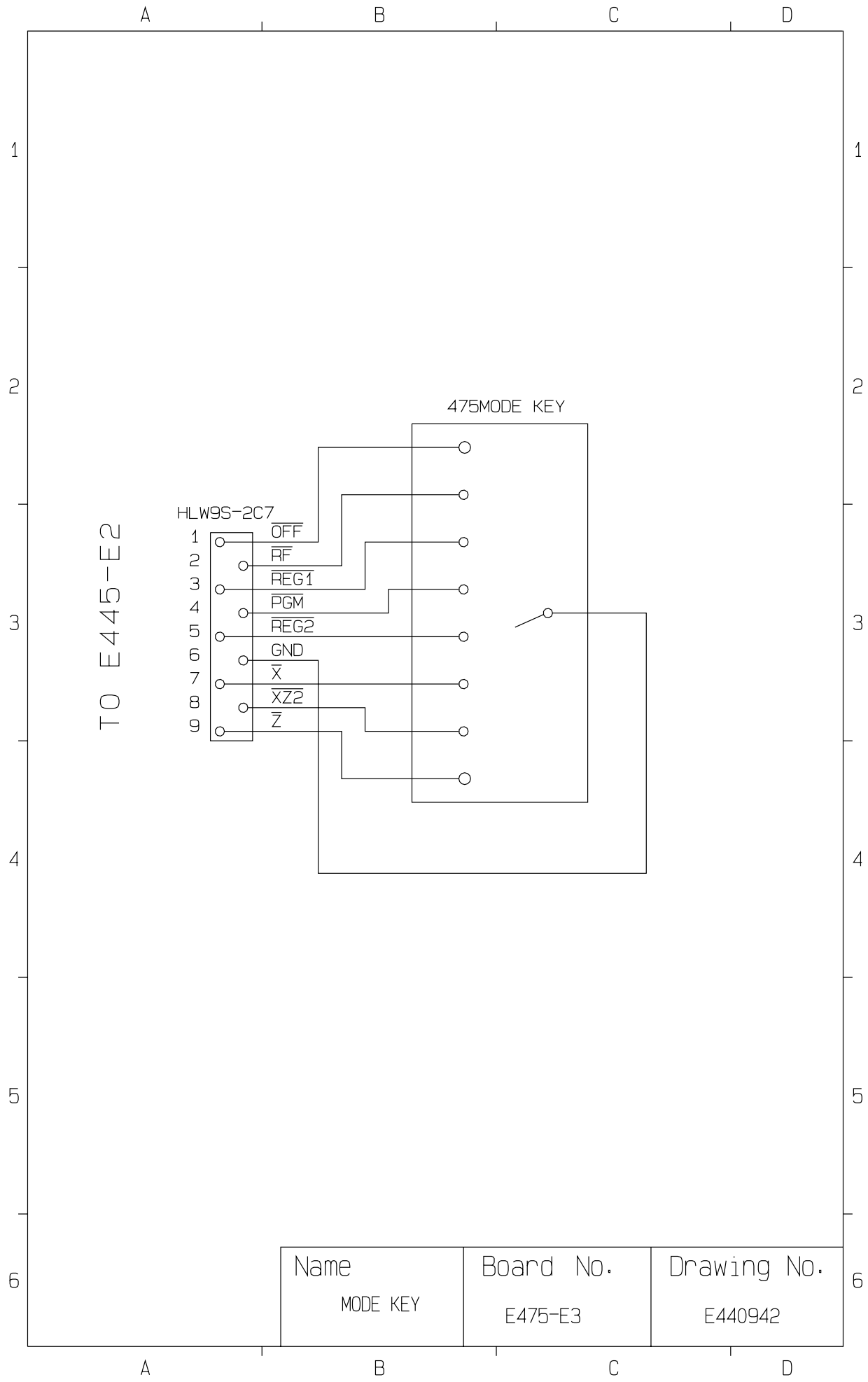
	F1	F2	F3
UL/cUL	2371.25	213002	239.400
CE/GS/SEMKO	218001		218.400

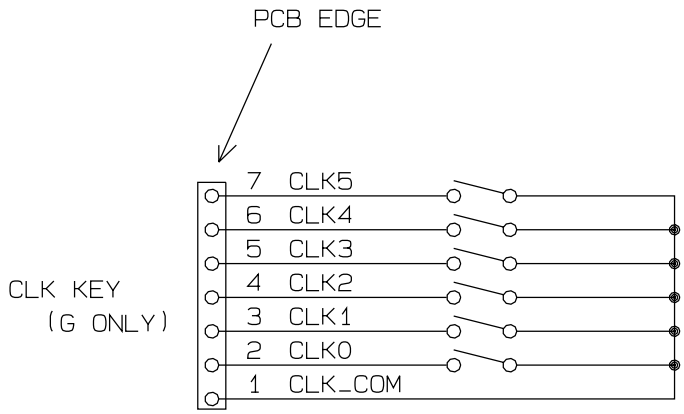
Name	Board No.	Drawing No.
POWER SUPPLY	E445-S1	E340815


4M:A0-A18
8M:A0-A19
16M:A0-A20
CN1
IMSA-9841B-40Y930
20
22
18
25 RD
23 WR
30 A0
32 A1
34 A2
36 A3
3 A4
2 A5
4 A6
6 A7
8 A8
10 A9
12 A10
14 A11
5 A12
7 A13
9 A14
11 A15
13 A16
15 A17
17 A18
19 A19
21 A20
38 D0
40 D1
37 D2
39 D3
35 D4
33 D5
31 D6
29 D7
1 FLH CE
16 FLH RST
27 RY/BY
24
26
28
Vcc
Vpp
GND
A20
A19 1
A18 2
A17 3
A16 4
A15 5
A14 6
A13 7
A12 8
CE 9
Vcc 10
Vpp 11
RP 12
A11 13
A10 14
A9 15
A8 16
A7 17
A6 18
A5 19
A4 20
A19/NC 1
A18 2
A17 3
A16 4
A15 5
A14 6
A13 7
A12 8
A11 9
A10 10
A9 11
A8 12
A7 13
A6 14
A5 15
A4 16
LH28F004SCT-L85
IC1
A20/NC 40
NC 39
WE 38
OE 37
RY/BY 36
DQ7 35
DQ6 34
DQ5 33
DQ4 32
Vcc 31
GND 30
GND 29
DQ3 28
DQ2 27
DQ1 26
DQ0 25
A0 24
A1 23
A2 22
A3 21
D7
D6
D5
D4
D3
D2
D1
D0
A0
A1
A2
A3
C1
C104
GND
Name
FLASH BOARD
Board No.
E475-FLS
Drawing No.
E440969


DISP1
SH101MA
VF1
Pd
Pe
Pg
Pf
Ph
G10
G9
G8
G7
G6
G5
G4
G3
G2
G1
VN
Pa
Pb
Pc
PDp
VF2
CN1 HLW12R-2C7
CN2 HLW10R-2C7
Name
POP-UP DISPLAY(VFD)
Board No.
E445B-E22
Drawing No.
E440757


A
B
C
D
1
2
3
4
5
6
GND
5
9
4
8
3
7
2
6
1
B:ID9P33E4GX28
COM3
CN4
4-φ3.3mm
*75B+575A:TCP7361-11-0201
3 DTR3
1 CTS3
2 TX3
4 RTS3
6 RX3
8 DSR3
16 Vcc
12
13
14
Vp
18 DTR2
20 CTS2
19 TX2
17 RTS2
15 RX2
11 DSR2
5
7
9
10
GND
CN1
475A:HLW20R-2C7
TO E445-1
Vp
GND
FG
1
2
3
CN3
FG
GND
Vcc
475A:ID9P33E4GX28
COM2
CN2
Name
CONNECTOR BOARD
Board No.
E445-CNB
Drawing No.
E440758


A
B
C
D
1
2
3
4
5
6
TO E445-E2
HLW9S-2C7
1 OFF
2 RF
3 REG1
4 PGM
5 REG2
6 GND
7 X
8 XZ2
9 Z
475MODE KEY
Name
MODE KEY
Board No.
E475-E3
Drawing No.
E440942



Name	Board No.	Drawing No.
CLERK LOCK KEY	E	E440970

12. PARTS LIST

PARTS LIST

MODEL : CE-7000 (EX-475B*,C*,D*)

CONTENTS

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    DL-2767 (M type) UK, Germany..... 107
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    DL-3616 (L type) USA,Canada..... 113
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NOTES :

1. Price and specifications are subject to change withput prior notice.

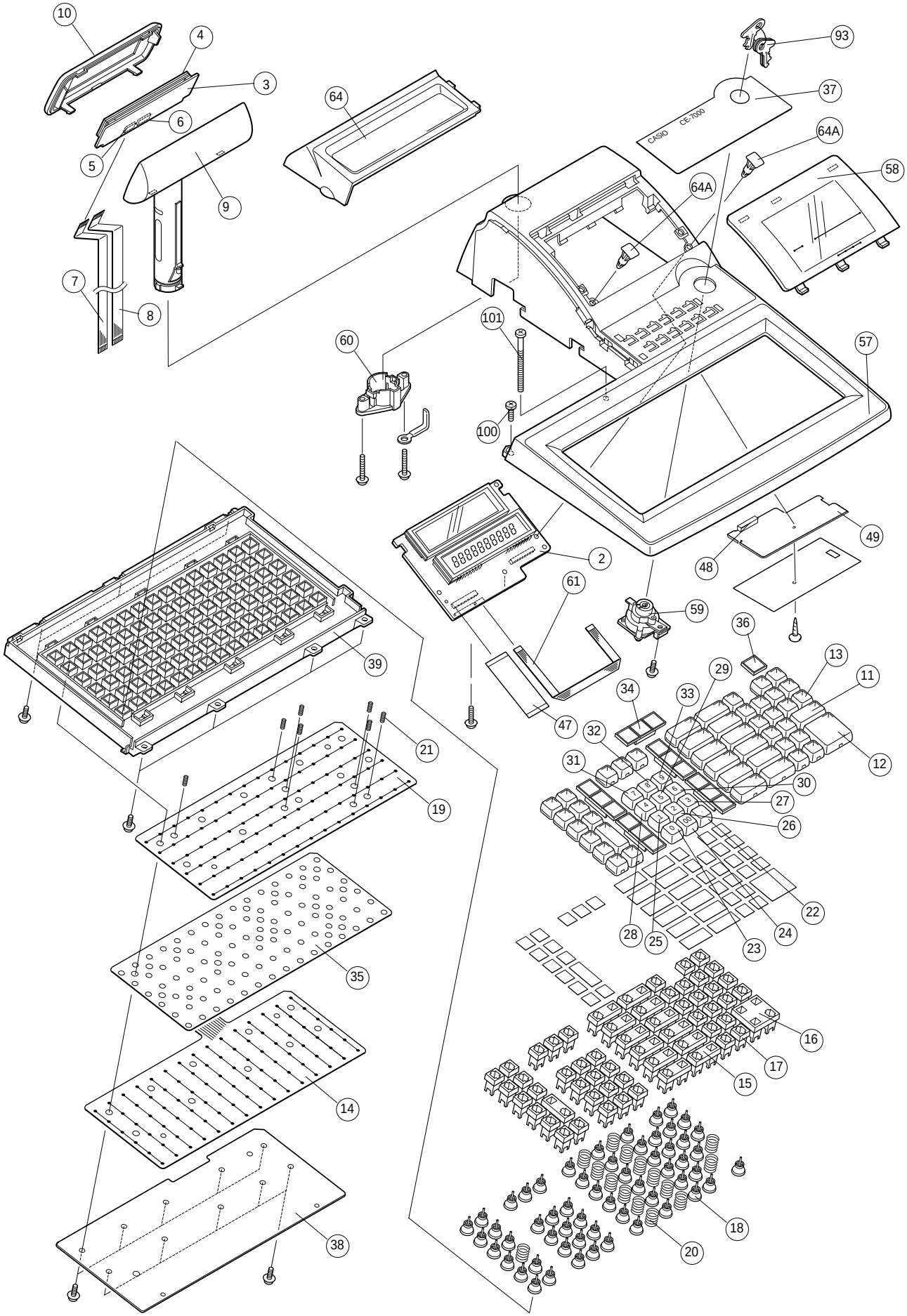
2. As for spare parts order and supply, refer to the “GUIDEBOOK for Spare Parts Supply”, published separately.

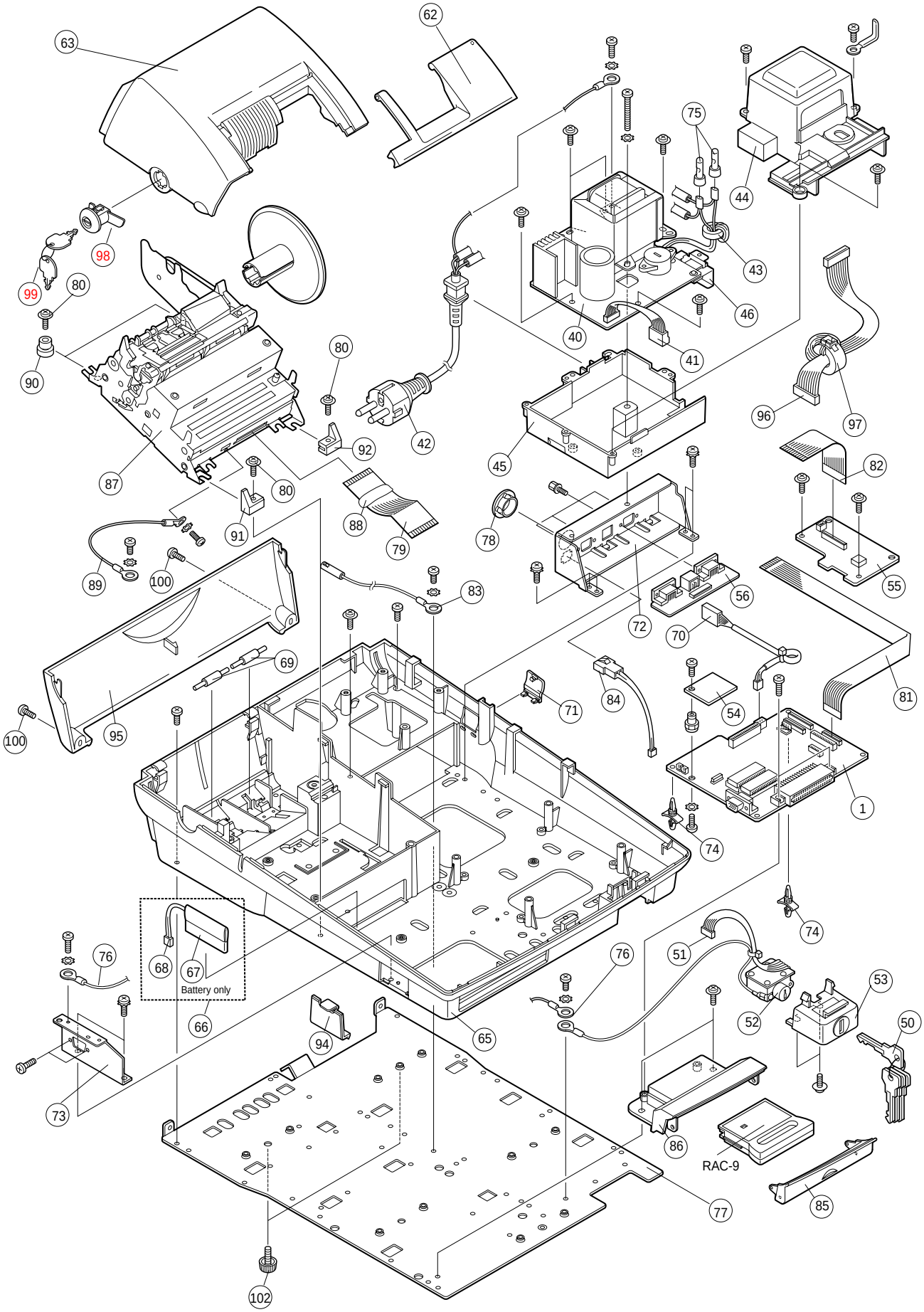
3. The numbers in item column corespond to the same numbers in drawing.

4. CASIO does not supply the spare parts without parts code.

5. Remarks

Q'ty : Quantity used per unit
RANK: A = Essential
B = Stock recommended
C = Less recommended
X = No stock recommended


CASIO CE-7000


63
62
98
99
80
90
87
80
92
42
80
91
88
79
89
100
83
69
100
95
71
84
54
81
72
70
56
55
82
78
45
40
41
46
43
75
44
96
97
1
74
74
76
68
67
Battery only
66
73
65
94
76
51
52
53
50
86
RAC-9
85
77
102

N	Item	Code No.	Parts Name	Specification	Q'ty							Price Code	R
					Europe	INC	UK	Germany	Canada	Other Countries	Saudi Arabia		
	1. Main PCB block												
N	**1**	61935380	PCB ASSY/E475-1	E240580*6	1		1	1		1	1	DZ	A
N	**1**	61935381	PCB ASSY/E475-1	E240580*5		1			1			DZ	A
	F1	30007777	FUSE	230.600	1	1	1	1	1	1	1	AE	A
	IC1	21145832	IC/MOS	TA8429H	1	1	1	1	1	1	1	AZ	A
	IC10	10005687	LSI	UPD784215GC084-8EU	1	1	1	1	1	1	1	BW	A
N	IC11	10005662	IC/MOS	SN74LV374APWR	1	1	1	1	1	1	1	AF	A
N		10004414	IC/MOS	SN74LV74APWR	2	2	2	2	2	2	2	AC	A
N		10005721	IC/MOS	SN74LV244APWR	3	3	3	3	3	3	3	AF	A
N		10005666	IC/MOS	SN74LV174PWR	3	3	3	3	3	3	3	AD	A
		10005691	IC/MOS	SN74HC157APWR	2	2	2	2	2	2	2	AE	A
		21120820	IC	HIN211CA-T	2	2	2	2	2	2	2	AT	A
	IC2	10005690	IC/RESET	S-80823ANNP-EDL-T2	1	1	1	1	1	1	1	AB	A
	IC24	10004413	IC/MOS	SN74LV32APWR	1	1	1	1	1	1	1	AB	A
		10003984	IC/MOS	SN74LV00APWR	2	2	2	2	2	2	2	AB	A
		10005671	IC/MOS	SN74LV138APWR	2	2	2	2	2	2	2	AD	A
	IC29	10005664	IC/MOS	SN74HC27PWR	1	1	1	1	1	1	1	AC	A
		20061691	LSI	HY628100ALLG-70	2	2	2	2	2	2	2	BD	A
		10005642	IC/MOS	SN74LV02APWR	2	2	2	2	2	2	2	AB	A
		10005669	IC/MOS	SN74LV139APWR	2	2	2	2	2	2	2	AD	A
	IC32	10005674	IC/MOS	HD74LVC244ATELL	1	1	1	1	1	1	1	AF	A
	IC33	10005659	IC/MOS	SN74LV08APWR	1	1	1	1	1	1	1	AB	A
	IC34	10005676	IC/MOS	HD74LVC245ATELL	1	1	1	1	1	1	1	AF	A
	IC35	10005657	IC/MOS	SN74LV245APWR	1		1	1		1	1	AF	A
	IC4	21120821	IC/COMPARATOR	BA10393F-E2	1	1	1	1	1	1	1	AB	A
	IC40	21120819	IC	HIN202CBN-T	1	1	1	1	1	1	1	AP	A
	IC44	10005651	IC/MOS	SN74AHC1G00DCKR	1	1	1	1	1	1	1	AB	A
	IC45	10005655	IC/RESET	S-80835ALNP-EAZ-T2	1	1	1	1	1	1	1	AB	A
	IC5	21120831	IC/MOS	MTA001M-F4101	1	1	1	1	1	1	1	BH	A
	IC6	10004463	LSI	LH28F016SCT-L95	1	1	1	1	1	1	1	CI	A
	IC7	10005678	IC/MOS	HD74LVC374ATELL	1	1	1	1	1	1	1	AF	A
N	X1	24088404	LOCK/CERAMIC	CSTCV12. 5MTJOC4-T	1	1	1	1	1	1	1	AD	A
	X2	25203445	OSCILLATOR/CRYSTAL	C-002RX(M90-76)	1	1	1	1	1	1	1	AD	A
	D1	23153126	DIODE/ZENER	RD4.3SB1-T1	1	1	1	1	1	1	1	AA	B
		23901820	DIODE	1SS355TE-17	4	4	4	4	4	4	4	AA	B
	D22	23153127	DIODE/ZENER	PTZTE-2522A	1	1	1	1	1	1	1	AB	B
	D4	23153125	DIODE/ZENER	RD22UJN1-T1	1	1	1	1	1	1	1	AA	B
		23902058	DIODE	1SR154-400TE25	11	11	11	11	11	11	11	AB	B
N	FB12	30008098	INDUCTOR	FBMJ4516HS720NT	1	1	1	1	1	1	1	AB	B
N	FB30-33, 35-37, 39, 44, 45	30132359	INDUCTOR	BK32164S601-T	10	10	10	10	10	10	10	AA	B
		30450028	INDUCTOR	BK1608HS601-T	4	4	4	4	4	4	4	AA	B
N		30008056	INDUCTOR	FBMH3216HM501NT	5	5	5	5	5	5	5	AB	B
		79113038	TRANSISTOR/DIGITAL	DTC114YUAT106	2	2	2	2	2	2	2	AA	B
	O12	22501601	TRANSISTOR	2SC4617TLO	1	1	1	1	1	1	1	AA	B
	O14	22501618	TRANSISTOR	2SD1803S/T-TL	1	1	1	1	1	1	1	AD	B
	Q2-5	22501602	TRANSISTOR	2SD1834T100	4	4	4	4	4	4	4	AB	B
		22501619	TRANSISTOR	2SD1817-TL	5	5	5	5	5	5	5	AE	B
	O7	22501605	TRANSISTOR	2SC4081T106	1	1	1	1	1	1	1	AA	B
	BZ1	32402089	BUZZER	PKM22EPT-2001	1	1	1	1	1	1	1	AE	C
N		28073626	CAPACITOR/ELECTROLYTIC	RV3-10V221MF80-R	4	4	4	4	4	4	4	AB	C
	C27	28077127	CAPACITOR/ELECTROLYTIC	RV2-50V010M-R	1	1	1	1	1	1	1	AA	C
N		28073647	CAPACITOR/ELECTROLYTIC	RV2-16V101MS-R	3	3	3	3	3	3	3	AA	C
	C34	28077099	CAPACITOR/ELECTROLYTIC	RV2-50V100M-R	1	1	1	1	1	1	1	AA	C
N		28077818	CAPACITOR/ELECTROLYTIC	RV-35V101MG10-R	3	3	3	3	3	3	3	AB	C
N	CA1-5	28073645	CAPACITOR/MODULE	MNA145A470KK	5	5	5	5	5	5	5	AA	C
N		10004467	CAPACITOR/MODULE	CAF13CH330K50AT	2	2	2	2	2	2	2	AA	C
		35005846	CONNECTOR	53253-0210	2	2	2	2	2	2	2	AA	C
	CN10	10005684	CONNECTOR	IMSA-9830S-40Y930	1	1	1	1	1	1	1	AI	C
	CN12	35405180	CONNECTOR	HFW20S-2STE1	1	1	1	1	1	1	1	AC	C
	CN13	35405192	CONNECTOR	B28B-PHDSS	1	1	1	1	1	1	1	AE	C
	CN15	35019408	CONNECTOR	B7B-ZR-SM3-TF	1		1	1		1	1	AC	C
	CN16	30007917	PLUG/D-SUB CONNECTOR	ID9P33E4GX28	1	1	1	1	1	1	1	AK	C
	CN17	35405199	CONNECTOR	PSB4D22RA-1	1	1	1	1	1	1	1	AX	C
	CN2	35405200	CONNECTOR	HLEM29S-1	1	1	1	1	1	1	1	AC	C
	CN3	35021809	CONNECTOR	B3B-PH-SM3-TB	1	1	1	1	1	1	1	AC	C
	CN7	35405202	CONNECTOR	HFW24S-2STE1	1	1	1	1	1	1	1	AD	C
	CN8	10005643	CONNECTOR	HFW28S-2STE1	1	1	1	1	1	1	1	AD	C
	CN9	35802371	CONNECTOR	B4P-VH	1	1	1	1	1	1	1	AB	C
		36106859	SOCKET/IC	DILB32P-8JK	2	2	2	2	2	2	2	AD	C
	R54	26523053	RESISTOR/METAL FILM	ERX1ANJ5R6H	1	1	1	1	1	1	1	AA	C
N	RA1-10, 20-22, 25-27, 35, 40-48, 61, 62, 65	26601156	RESISTOR/CHIP NETWORK	RAC1608-1034DJT	29	29	29	29	29	29	29	AA	C
N		26601162	RESISTOR/CHIP NETWORK	RAC1608-4714DJT	2	2	2	2	2	2	2	AA	C
N		10005641	RESISTOR/CHIP NETWORK	RAC1608-4704DJT	10	10	10	10	10	10	10	AA	C
N		26601159	RESISTOR/CHIP NETWORK	RAC1608-4724DJT	3		3	3		3	3	AA	C
N	RA49-57	27975518	RESISTOR/CHIP NETWORK	RAC1608-1014DJT		15			15			AA	C
N	RA49-59	27975518	RESISTOR/CHIP NETWORK	RAC1608-1014DJT	17		17	17		17	17	AA	C
N	RA60	26601159	RESISTOR/CHIP NETWORK	RAC1608-4724DJT		1			1			AA	C
N	RA64	10005679	RESISTOR/CHIP NETWORK	RAC1608-3924DJT	1	1	1	1	1	1	1	AA	C

N	Item	Code No.	Parts Name	Specification	Q'ty							Price Code	R
					Europe	INC	UK	Germany	Canada	Other Countries	Saudi Arabia		
	SW1	30008096	SWITCH	SKOLLD-T	1	1	1	1	1	1	1	AD	C
	SW2	10004466	SWITCH/SLIDE	SSSS823-B-3B	1	1	1	1	1	1	1	AF	C
		10014177	SPACER/PCB	E440986-1	1	1	1	1	1	1	1	AB	C
	C1, 2, 6, 8-13, 20-24, 28, 31, 32, 35, 37, 39, 41, 43, 47-52, 55, 58-60, 64, 65, 67, 68, 73-76, 79, 81, 82		CAPACITOR/CHIP	TMK107F104ZZ-T	43		43	43		43	43		X
	C1, 2, 6, 8-13, 20-24, 28, 31, 32, 35, 37, 39, 41, 43, 47-52, 55, 58-60, 64, 65, 68, 73-76, 79, 81, 82		CAPACITOR/CHIP	TMK107F104ZZ-T		42			42				X
			CAPACITOR/CHIP	TMK107B102KZ-T	3	3	3	3	3	3	3		X
	C18		CAPACITOR/CHIP	TMK107B222KZ-T	1	1	1	1	1	1	1		X
			CAPACITOR/CHIP	TMK107B103KZ-T	2	2	2	2	2	2	2		X
			CAPACITOR/CHIP	UMK107CH101JZ-T	4	4	4	4	4	4	4		X
	C36		CAPACITOR/CHIP	UMK107CH100DZ-T	1	1	1	1	1	1	1		X
	C38		CAPACITOR/CHIP	MCH185A180JK	1	1	1	1	1	1	1		X
	C45, 46, 61-63, 66, 69-72, 77, 78		CAPACITOR/CHIP	UMK212BJ104KG-T	12	12	12	12	12	12	12		X
	C5		CAPACITOR/CHIP	ECHU1C103GB5	1	1	1	1	1	1	1		X
			CAPACITOR/CHIP	UMK212F104ZR-T	2	2	2	2	2	2	2		X
			RESISTOR/CHIP	RC1608-472-J-T	4	4	4	4	4	4	4		X
			RESISTOR/CHIP	RC1608-102-J-T	8	8	8	8	8	8	8		X
	R14		RESISTOR/CHIP	RC1608-222-J-T	1	1	1	1	1	1	1		X
	R16		RESISTOR/CHIP	RC1608-331-J-T	5	5	5	5	5	5	5		X
	R2		RESISTOR/CHIP	RC1608-154-F-T	1	1	1	1	1	1	1		X
	R23		RESISTOR/CHIP	RC1608-563-F-T	1	1	1	1	1	1	1		X
			RESISTOR/CHIP	RC1608-472-F-T	2	2	2	2	2	2	2		X
	R26		RESISTOR/CHIP	RC1608-104-J-T	1	1	1	1	1	1	1		X
	R27		RESISTOR/CHIP	MCR03EZHF3600	1	1	1	1	1	1	1		X
	R28		RESISTOR/CHIP	MCR03EZHF1540	1	1	1	1	1	1	1		X
	R3		RESISTOR/CHIP	MCR50JZHJ202	1	1	1	1	1	1	1		X
	R32		RESISTOR/CHIP	RC1608-334-J-T	1	1	1	1	1	1	1		X
	R33		RESISTOR/CHIP	RC1608-105-J-T	1	1	1	1	1	1	1		X
	R38		RESISTOR/CHIP	RC1608-432-F-T	1	1	1	1	1	1	1		X
	R39		RESISTOR/CHIP	RC1608-622-F-T	1	1	1	1	1	1	1		X
	R4, 16, 29, 42, 56-58, 63, 64, 72, 74, 83, *5		RESISTOR/CHIP	RC1608-103-J-T		13			13				X
	R4, 16, 29, 42, 56-58, 63, 64, 72, 74, 83, *6		RESISTOR/CHIP	RC1608-103-J-T	13		13	13		13	13		X
	R40		RESISTOR/CHIP	RC1608-123-F-T	1	1	1	1	1	1	1		X
			RESISTOR/CHIP	RC1608-101-J-T	3	3	3	3	3	3	3		X
	R59		RESISTOR/CHIP	RC1608-822-J-T	1	1	1	1	1	1	1		X
	R6		RESISTOR/CHIP	RC1608-202-J-T	1	1	1	1	1	1	1		X
			RESISTOR/CHIP	RC1608-563-J-T	2	2	2	2	2	2	2		X
	R7		RESISTOR/CHIP	RC1608-623-J-T	1	1	1	1	1	1	1		X
	R70		RESISTOR/CHIP	MCR18EZHJ102	1	1	1	1	1	1	1		X
	R8		RESISTOR/CHIP	RC1608-332-J-T	1	1	1	1	1	1	1		X
	R9		RESISTOR/CHIP	MCR50JZHJ222	1	1	1	1	1	1	1		X
			PCB/E475-1	E240581-1	1	1	1	1	1	1	1		X
			SCREW	3X5 ZMC-3	1	1	1	1	1	1	1		X
	2. Main display PCB block												
	2	61935022	PCB ASSY/E445B-E2	E340793*1	1	1	1	1	1	1	1	DW	B
	IC1	20061697	LSI	UPD78015FGC526-AB8	1	1	1	1	1	1	1	BM	A
	IC10-12	10003982	IC/MOS	SN74LV165APWR	3	3	3	3	3	3	3	AE	A
	IC2	21120827	IC/MOS	TC74VHC123AFT(EL)	1	1	1	1	1	1	1	AH	A
	IC3	10004414	IC/MOS	SN74LV74APWR	1	1	1	1	1	1	1	AC	A
	IC4	10004413	IC/MOS	SN74LV32APWR	1	1	1	1	1	1	1	AB	A
	IC5	20061326	LSI	UPD16312GB-3B4	1	1	1	1	1	1	1	AX	A
	IC6	10007012	IC/MOS	MB3800PF	1	1	1	1	1	1	1	AO	A
		20061703	LSI	LC7932M-TE-R	2	2	2	2	2	2	2	AP	A
	IC9	10003984	IC/MOS	SN74LV00APWR	1	1	1	1	1	1	1	AB	A
N	X1	10017331	LOCK/CERAMIC	CSTCV10.0MTJOC4-T	1	1	1	1	1	1	1	AF	A
		23901820	DIODE	1SS355TE-17	2	2	2	2	2	2	2	AA	B
		30007959	DIODE	1SS376TE-17	3	3	3	3	3	3	3	AA	B
	DISP1	24088397	DISPLAY (Dot)	MN12832E	1	1	1	1	1	1	1	DC	B
	DISP2	24088226	DISPLAY (7 Segment)	SH101MA	1	1	1	1	1	1	1	BP	B
	Q1	22501605	TRANSISTOR	2SC4081T106	1	1	1	1	1	1	1	AA	B
	Q2	22501610	TRANSISTOR	2SC4027S/T-TL	1	1	1	1	1	1	1	AC	B
	Q3	22501606	TRANSISTOR	2SD1815S-TL	1	1	1	1	1	1	1	AD	B
	Q4-8	79113825	TRANSISTOR/DIGITAL	DTB122JKT146	5	5	5	5	5	5	5	AA	B
	T1	30008077	CONVERTER/DC	CEI-120-001	1	1	1	1	1	1	1	AS	B
	T2	30008078	CONVERTER/DC	CLS-12-098	1	1	1	1	1	1	1	AL	B
	ZD1	23153122	DIODE/ZENER	RD13SB-T1	1	1	1	1	1	1	1	AA	B
	ZD2	23153121	DIODE/ZENER	RD110SB-T1	1	1	1	1	1	1	1	AA	B
	ZD3	23153123	DIODE/ZENER	RD27SB-T1	1	1	1	1	1	1	1	AA	B
	ZD4	23153124	DIODE/ZENER	RD91SB-T1	1	1	1	1	1	1	1	AA	B
N		28073655	ELECTROLYTIC/CHIP	RVL-50V100MF60-R	2	2	2	2	2	2	2	AB	C

N	Item	Code No.	Parts Name	Specification	Q'ty							Price Code	R
					Europe	INC	UK	Germany	Canada	Other Countries	Saudi Arabia		
N	C13	28073653	ELECTROLYTIC/CHIP	RVJ-50V101MH10-R	1	1	1	1	1	1	1	AE	C
N	C14	28073657	ELECTROLYTIC/CHIP	RVJ-100V220MH10-R	1	1	1	1	1	1	1	AF	C
N	C16	28073656	ELECTROLYTIC/CHIP	RVL-35V220MF60-R	1	1	1	1	1	1	1	AB	C
N	C8	28073654	ELECTROLYTIC/CHIP	RVL-16V100MD60-R	1	1	1	1	1	1	1	AA	C
N	CA1-9	28073624	CAPACITOR/MODULE	MNA145A101KK	9	9	9	9	9	9	9	AA	C
	CN1	35405185	CONNECTOR	HFW12S-2STE1	1	1	1	1	1	1	1	AB	C
	CN2	35405184	CONNECTOR	HFW10S-2STE1	1	1	1	1	1	1	1	AB	C
	CN3	35405192	CONNECTOR	B28B-PHDSS	1	1	1	1	1	1	1	AE	C
	CN4	35405190	CONNECTOR	SFW27R-5STE1	1	1	1	1	1	1	1	AE	C
	CN5	35405196	CONNECTOR	HFW9R-1STE1	1	1	1	1	1	1	1	AB	C
	CN6	35405186	CONNECTOR	HFW24R-1STE1	1	1	1	1	1	1	1	AD	C
		30450028	INDUCTOR	BK1608HS601-T	29	29	29	29	29	29	29	AA	C
N		26523047	RESISTOR/CHIP NETWORK	RAC1608-5634DJT	12	12	12	12	12	12	12	AA	C
N		26601174	RESISTOR/CHIP NETWORK	RAC1608-3314DJT	5	5	5	5	5	5	5	AA	C
N		26601156	RESISTOR/CHIP NETWORK	RAC1608-1034DJT	7	7	7	7	7	7	7	AA	C
N		27975519	RESISTOR/CHIP NETWORK	RAC1608-1024DJT	3	3	3	3	3	3	3	AA	C
N		27975518	RESISTOR/CHIP NETWORK	RAC1608-1014DJT	3	3	3	3	3	3	3	AA	C
	C1-5, 7, 9, 11, 19-24, 28		CAPACITOR/CHIP	TMK107F104ZZ-T	15	15	15	15	15	15	15		X
	C10		CAPACITOR/CHIP	UMK107B122KZ-T	1	1	1	1	1	1	1		X
	C15		CAPACITOR/CHIP	UMK107B152KZ-T	1	1	1	1	1	1	1		X
			CAPACITOR/CHIP	UMK107CH101JZ-T	5	5	5	5	5	5	5		X
			RESISTOR/CHIP	RC1608-105-J-T	2	2	2	2	2	2	2		X
	R11		RESISTOR/CHIP	RC1608-1331-F-T	1	1	1	1	1	1	1		X
	R12		RESISTOR/CHIP	RC1608-154-F-T	1	1	1	1	1	1	1		X
	R13		RESISTOR/CHIP	MCR18EZHJ473	1	1	1	1	1	1	1		X
	R14		RESISTOR/CHIP	RC1608-562-J-T	1	1	1	1	1	1	1		X
	R15		RESISTOR/CHIP	RC1608-101-J-T	1	1	1	1	1	1	1		X
			RESISTOR/CHIP	RC1608-121-J-T	3	3	3	3	3	3	3		X
			RESISTOR/CHIP	RC1608-563-J-T	6	6	6	6	6	6	6		X
			RESISTOR/CHIP	RC1608-102-J-T	2	2	2	2	2	2	2		X
	R5		RESISTOR/CHIP	RC1608-513-F-T	1	1	1	1	1	1	1		X
	R6		RESISTOR/CHIP	MCR18EZHJ220	1	1	1	1	1	1	1		X
	R7		RESISTOR/CHIP	RC1608-222-J-T	1	1	1	1	1	1	1		X
	R8		RESISTOR/CHIP	RC1608-222-J-T	1	1	1	1	1	1	1		X
	R9		RESISTOR/CHIP	RC1608-333-J-T	1	1	1	1	1	1	1		X
			RESISTOR/CHIP	MCR03EZHJ331	1	1	1	1	1	1	1		X
			RESISTOR/CHIP	MCR03EZHJ000	2	2	2	2	2	2	2		X
			CUSHION/A	E440658-1	2	2	2	2	2	2	2		X
			CUSHION/B	E440658-2	2	2	2	2	2	2	2		X
			PCB/E445B-E2	E340790B-1	1	1	1	1	1	1	1		X
	3. Customer Display block												
N	**3**	43081403	PCB/E445B-E2-2	E340801-1	1	1	1	1	1	1	1	AC	X
	4	24088226	DISPLAY	SH101MA	1	1	1	1	1	1	1	BP	B
N	**5**	35405193	CONNECTOR	HLW10R-2C7	1	1	1	1	1	1	1	AB	C
N	**6**	35405194	CONNECTOR	HLW12R-2C7	1	1	1	1	1	1	1	AB	C
	7	62481475	CABLE/FFC JOINT D E445	E440657-4	1	1	1	1	1	1	1	AU	C
	8	62481476	CABLE/FFC JOINT E E445	E440657-5	1	1	1	1	1	1	1	AU	C
	9	62481785	CASE/REAR DISPLAY	E240511A-1	1	1	1	1	1	1	1	AH	C
N	**10**	10017336	PLATE/REAR DISPLAY	E240512-5	1	1	1	1	1	1	1	AI	B
N		62481698	PLATE/INSULATION	E440781-1	1	1	1	1	1	1	1	AB	C
N		62474803	CUSHION/DISPLAY	E440189-4	2	2	2	2	2	2	2	AA	X
	4. Button block												
			BUTTON SUB ASSY	E140293*4	1					1	1		X
			BUTTON SUB ASSY	E140293*5		1			1				X
			BUTTON SUB ASSY	E140293*6			1						X
			BUTTON SUB ASSY	E140293*7				1					X
	11	62213988	CAP/L	E210964-1	4	4	14	14	4	4	4	AB	B
	12	62214346	CAP/LLL	E211131-1	1	1	1	1	1	1	1	AC	B
	13	62214025	CAP/S	E311103-1	50	51	25	30	51	50	50	AA	B
	14	62481750	FPC	E240507A-1	1	1	1	1	1	1	1	BF	B
	15	62467768	KEYTOP/L	E210963A-4	4	4	14	14	4	4	4	AD	B
	16	62471471	KEYTOP/LLL	E211132B-3	1	1	1	1	1	1	1	AB	B
	17	62467810	KEYTOP/S	E311101A-4	62	63	37	42	63	62	62	AA	B
	18	62480990	RUBBER/CONTACT	E411877A-1	67	68	52	57	68	67	67	AA	B
	19	62481294	SHEET/COMMON	E340737-1	1	1	1	1	1	1	1	AV	B
	20	62473830	SPRING/COIL	E411104A-1	5	5	15	15	5	5	5	AA	B
	21	62473837	SPRING/COIL	E411104A-2	7	7	7	7	7	7	7	AA	B
	22	62457340	BUTTON/.	E311792-10	1	1	1	1	1	1	1	AB	C
	23	62457330	BUTTON/0	E311792-9	1	1	1	1	1	1	1	AB	C
	24	62457350	BUTTON/00	E311792-11	1	1	1	1	1	1	1	AB	C
	25	62457250	BUTTON/1	E311792-1	1	1	1	1	1	1	1	AB	C
	26	62457260	BUTTON/2	E311792-2	1	1	1	1	1	1	1	AB	C
	27	62457270	BUTTON/3	E311792-3	1	1	1	1	1	1	1	AB	C
	28	62457280	BUTTON/4	E311792-4	1	1	1	1	1	1	1	AB	C
	29	62457360	BUTTON/5	E311116-4	1	1	1	1	1	1	1	AB	C
	30	62457290	BUTTON/6	E311792-5	1	1	1	1	1	1	1	AB	C
	31	62457300	BUTTON/7	E311792-6	1	1	1	1	1	1	1	AB	C
	32	62457310	BUTTON/8	E311792-7	1	1	1	1	1	1	1	AB	C
	33	62457320	BUTTON/9	E311792-8	1	1	1	1	1	1	1	AB	C

N	Item	Code No.	Parts Name	Specification	Q'ty							Price Code	R
					Europe	INC	UK	Germany	Canada	Other Countries	Saudi Arabia		
	34	62471478	FILLER/BUTTON	E311197-2	5	5	7	5	5	5	5	AB	C
	35	62481295	SPACER	E340738-1	1	1	1	1	1	1	1	AF	C
	36	62461990	FILLER/BUTTON	E412129-1	1			1		1	1	AE	C
N	**37**	62481736	PLATE/MODE KEY E475BB	E340735A-10	1		1			1	1	AH	C
N	**37**	62481737	PLATE/MODE KEY E475BC	E340735A-11		1		1	1			AG	C
N	**38**	62481296	CHASSIS/KEYBOARD	E340739-1	1	1	1	1	1	1	1	AK	X
	39	62481255	FRAME/KEYBOARD	E140249-1	1	1	1	1	1	1	1	AU	X
	-		PLATE/S	E240526-7	1	1	1	1	1	1	1		X
	%-		PLATE/S	E240526-6	1	1	1	1	1	1	1		X
	#/NS		PLATE/S	E240526-66	1	1	1	1	1	1	1		X
	C		PLATE/S	E240526-69	1	1	1	1	1	1	1		X
	CA/AMT		PLATE/LLL	E340772-2	1	1	1	1	1	1	1		X
	CH		PLATE/S	E240526-77	1	1	1	1	1	1	1		X
	CHK/TEND		PLATE/S	E240526-78	1	1	1	1	1	1	1		X
	CLK#		PLATE/S	E240526-81		1			1				X
	CPN		PLATE/L	E240527-20	1		1	1		1	1		X
	CR1		PLATE/S	E240526-75	1	1	1	1	1	1	1		X
	CR2		PLATE/S	E240526-76	1	1	1	1	1	1	1		X
	DEP1		PLATE/L	E240527-15			1	1					X
	DEP1		PLATE/S	E240526-57	1	1			1	1	1		X
	DEP10		PLATE/L	E240527-13			1	1					X
	DEP10		PLATE/S	E240526-30	1	1			1	1	1		X
	DEP11		PLATE/S	E240526-31	1	1	1	1	1	1	1		X
	DEP12		PLATE/S	E240526-32	1	1	1	1	1	1	1		X
	DEP13		PLATE/S	E240526-33	1	1	1	1	1	1	1		X
	DEP14		PLATE/S	E240526-34	1	1	1	1	1	1	1		X
	DEP15		PLATE/S	E240526-35	1	1	1	1	1	1	1		X
	DEP16		PLATE/S	E240526-36	1	1		1	1	1	1		X
	DEP17		PLATE/S	E240526-37	1	1		1	1	1	1		X
	DEP18		PLATE/S	E240526-38	1	1		1	1	1	1		X
	DEP19		PLATE/S	E240526-39	1	1		1	1	1	1		X
	DEP2		PLATE/L	E240527-16			1	1					X
	DEP2		PLATE/S	E240526-58	1	1			1	1	1		X
	DEP20		PLATE/S	E240526-40	1	1		1	1	1	1		X
	DEP21		PLATE/S	E240526-41	1	1			1	1	1		X
	DEP22		PLATE/S	E240526-42	1	1			1	1	1		X
	DEP23		PLATE/S	E240526-43	1	1			1	1	1		X
	DEP24		PLATE/S	E240526-44	1	1			1	1	1		X
	DEP25		PLATE/S	E240526-45	1	1			1	1	1		X
	DEP26		PLATE/S	E240526-46	1	1			1	1	1		X
	DEP27		PLATE/S	E240526-47	1	1			1	1	1		X
	DEP28		PLATE/S	E240526-48	1	1			1	1	1		X
	DEP29		PLATE/S	E240526-49	1	1			1	1	1		X
	DEP3		PLATE/L	E240527-17			1	1					X
	DEP3		PLATE/S	E240526-59	1	1			1	1	1		X
	DEP30		PLATE/S	E240526-50	1	1			1	1	1		X
	DEP4		PLATE/L	E240527-18			1	1					X
	DEP4		PLATE/S	E240526-60	1	1			1	1	1		X
	DEP5		PLATE/L	E240527-8			1	1					X
	DEP5		PLATE/S	E240526-25	1	1			1	1	1		X
	DEP6		PLATE/L	E240527-9			1	1					X
	DEP6		PLATE/S	E240526-26	1	1			1	1	1		X
	DEP7		PLATE/L	E240527-10			1	1					X
	DEP7		PLATE/S	E240526-27	1	1			1	1	1		X
	DEP8		PLATE/L	E240527-11			1	1					X
	DEP8		PLATE/S	E240526-28	1	1			1	1	1		X
	DEP9		PLATE/L	E240527-12			1	1					X
	DEP9		PLATE/S	E240526-29	1	1			1	1	1		X
	ERR.CORR CANCEL		PLATE/S	E240526-68	1	1	1	1	1	1	1		X
	EURO/PD		PLATE/S	E240526-74	1		1	1		1	1		X
	JOURNAL FEED		PLATE/S	E240526-62	1	1	1	1	1	1	1		X
	MEDIA CHANGE		PLATE/S	E240526-65	1		1			1	1		X
	OPEN		PLATE/S	E240526-71	1		1	1		1	1		X
	PD		PLATE/S	E240526-83		1			1				X
	PLU		PLATE/L	E240527-1	1	1	1	1	1	1	1		X
	PRICE		PLATE/L	E240527-19	1	1	1	1	1	1	1		X
	RC		PLATE/S	E240526-73	1	1	1	1	1	1	1		X
	RECEIPT		PLATE/S	E240526-63	1	1	1	1	1	1	1		X
	RECEIPT		PLATE/S	E240526-79		1		1	1				X
	RECEIPT FEED		PLATE/S	E240526-61	1	1	1	1	1	1	1		X
	RF		PLATE/S	E240526-67	1	1	1	1	1	1	1		X
	SUB TOTAL		PLATE/L	E240527-21	1	1	1	1	1	1	1		X
	T/S1		PLATE/L	E240527-22		1			1				X
	T/S2		PLATE/S	E240526-82		1			1				X
	VALID		PLATE/S	E240526-64	1	1	1	1	1	1	1		X
	VAT		PLATE/S	E240526-72	1		1	1		1	1		X
	X/DATE/TIME		PLATE/S	E240526-70	1		1	1		1	1		X
	X/FOR DATE/TIME		PLATE/S	E240526-80		1			1				X
			SCREW	3X8 pai 8 ZMC-3	10	10	10	10	10	10	10		X

N	Item	Code No.	Parts Name	Specification	Q'ty							Price Code	R
					Europe	INC	UK	Germany	Canada	Other Countries	Saudi Arabia		
	5. Power supply block												
N	**40**	10013899	PCB/E445-S1	E340808A-1		1			1		1	AH	X
N	**40**	10017368	PCB/E445-S1	E340808A-2	1		1	1		1		AM	X
N	F1	10017330	FUSE	2371.25		1			1			AB	A
	F1	36310332	FUSE	218001	1		1	1		1	1	AE	A
N	F2	10017328	FUSE	213002	1	1	1	1	1	1	1	AD	A
N	F3	10017329	FUSE	218.400	1		1	1		1	1	AB	A
	IC1	21120829	IC	LM2576HVT-5.0LB03	1	1	1	1	1	1	1	BO	A
	IC2	21120809	IC	HA17431PA	1	1	1	1	1	1	1	AC	A
N	T1	10017414	TRANSFORMER	TE-475-E3UA-1	1	1	1	1	1	1	1	DL	A
		30008090	FUSE	239.400		1			1			AC	A
N	D1	23153116	BRIDGE/DIODE	D3SBA20	1	1	1	1	1	1	1	AH	B
N	D2	23153117	DIODE	D3S6M	1	1	1	1	1	1	1	AA	B
	D3	23153128	DIODE	1SR35-400AT-82	1	1	1	1	1	1	1	AA	B
	D4	23902828	DIODE	RB441Q-40T-77	1	1	1	1	1	1	1	AA	B
	O1	22303619	TRANSISTOR	2SD1193	1	1	1	1	1	1	1	AU	B
	ZD1	23153119	DIODE/ZENER	RD39EB2	1	1	1	1	1	1	1	AA	B
N	C1	10021055	CAPACITOR	R46K124705001M	1		1	1		1	1	AC	C
		10021055	CAPACITOR	R46K124705001M		2			2			AC	C
	C5	28203730	CAPACITOR	ECQ-B1H-103-JZW	1	1	1	1	1	1	1	AA	C
N	C6	10021059	CAPACITOR/ELECTROLYTIC	LPH-50V103MS4	1	1	1	1	1	1	1	BT	C
	C7	28190743	CAPACITOR	HE40TJYB101K	1	1	1	1	1	1	1	AA	C
N	C8	10021060	CAPACITOR/ELECTROLYTIC	RJH-50V101MH4	1	1	1	1	1	1	1	AE	C
N	C9	10021061	CAPACITOR/ELECTROLYTIC	RJH-16V331MG4	1	1	1	1	1	1	1	AE	C
N		10017415	CLIP/FUSE	UF0033	6	6	6	6	6	6	6	AA	C
N	FT1	10017404	FILTER	PLA10A3021R3R02B1	1	1	1	1	1	1	1	AJ	C
	L1	30008061	COIL	MCDR1419-221K	1	1	1	1	1	1	1	AH	C
N	SW1	30008067	SWITCH/AC	SDDJE3-R	1	1	1	1	1	1	1	AT	C
N	SW2	10017389	SELECTOR/VOLTAGE	J-R1027#03	1		1	1		1		BG	C
N	SW2	10017394	SELECTOR/VOLTAGE	J-R1027#04							1	BG	C
			WIRE/J	IPS-1009-2	2	3	2	2	3	2	2	AA	X
N	O1	30008062	SINK/HEAT	OSH-3050-SPL	1	1	1	1	1	1	1	AH	X
N	R1	26523057	RESISTOR	RD50SS102J	1	1	1	1	1	1	1	AA	X
N	R2	26523060	RESISTOR	SN14K2C123F	1	1	1	1	1	1	1	AA	X
N	R3	26523059	RESISTOR	SN14K2C132F	1	1	1	1	1	1	1	AA	X
N	**41**	62481535	CABLE SUB ASSY/POWER	E440715*1	1	1	1	1	1	1	1	AP	C
	42	37004283	CORD/POWER	M3203						1	1	AZ	C
	42	37010242	CORD/POWER	MP5004			1					BO	C
	42	62214802	CORD/POWER	M2511	1			1				BC	C
	42	37004281	CORD/POWER	PS204		1			1			AV	C
	43	30304055	CORE/FERRITE	L5T18X6X10	1	1	1	1	1	1	1	AC	C
	44	62481654	CASE/NF-U E445	E140265-1		1			1			AO	C
	44	62482143	CASE/NF-U E445U	E140265-2	1		1	1		1	1	AO	C
N	**45**	62481279	CASE/NF-B	E240517-2	1	1	1	1	1	1	1	AB	C
	46	62481301	FIXTURE/POWER-SW	E440673-1	1	1	1	1	1	1	1	AB	C
			BAND/MARK	KN-1-N	1	1	1	1	1	1	1		X
			SCREW	3X8 ZMC-3	2	2	2	2	2	2	2		X
			SCREW	3X8 ZMC-3	2	2	2	2	2	2	2		X
			SCREW	3X5 ZMC-3	2	2	2	2	2	2	2		X
			SCREW	3X8 ZMC-3	1	1	1	1	1	1	1		X
			TIE/INSULOCK	T-18S	2	2	2	2	2	2	2		X
			TIE/INSULOCK	T-18S	1	1	1	1	1	1	1		X
	6. Clerk switch circuit (Except Germany)												
		24088399	LED	GL3EG8	7		7			7	7	AA	B
		34121029	SW/TACT	SKHHAL	7		7			7	7	AA	B
	47	62481474	CABLE/FFC JOINT	E440657-3	1		1			1	1	AC	C
	48	24088400	CONNECTOR	HLW24R-2C7	1		1			1	1	AC	C
N	**49**	43081402	PCB/E445-E6	E340798-1	1		1			1	1	AF	C
N		55001984	SPACER/LED	LH-5-7	7		7			7	7	AM	C
			WIRE/J	UJW-B(7.5mm)	5		5			5	5		X
	7. Clerk key block (Germany)												
	50	10003980	KEY SET/CLERK	306JYB-135-01R				1				CP	C
	51	62482225	CABLE SUB ASSY/CLERK KEY	E440785A*1				1				AG	C
	52	34002576	SWITCH/CLERK KEY	J-Y7541				1				BM	C
N	**53**	10017367	CASE/KEY CLERK SW	E311204A-2				1				AF	X
			CONNECTOR/FASTEN	E32406-2				1					X
			SCREW	2.6X8 ZMC-3				1					X
			TAB/FASTEN	23031-2				1					X
			TIE/INSULOCK	T-18S				1					X
	8. Flash2 board												
N		20061692	LSI	LH28F004SCT-L85	1	1	1	1	1	1	1	BM	A
		10005796	CONNECTOR	IMSA-9841B-40Y930	1	1	1	1	1	1	1	AI	C
N		71038139	CAPACITOR/CHIP	CM105Y5V105Z10AT	1	1	1	1	1	1	1	AA	X
	54	10005797	PCB/E475-FLS	E440952-1	1	1	1	1	1	1	1	AC	X
N		62481817	SPACER/FLS E445	E440779A-1	1	1	1	1	1	1	1	AA	C
	9. ARCNET In-line board												
N	**55**	10006022	PCB/E475-ARC	E340943-1	1	1	1	1	1	1	1	AL	B
		30008079	FUSE	430.500	2	2	2	2	2	2	2	AD	A
	IC1	10006024	LSI	COM20019ILJP	1	1	1	1	1	1	1	CF	A

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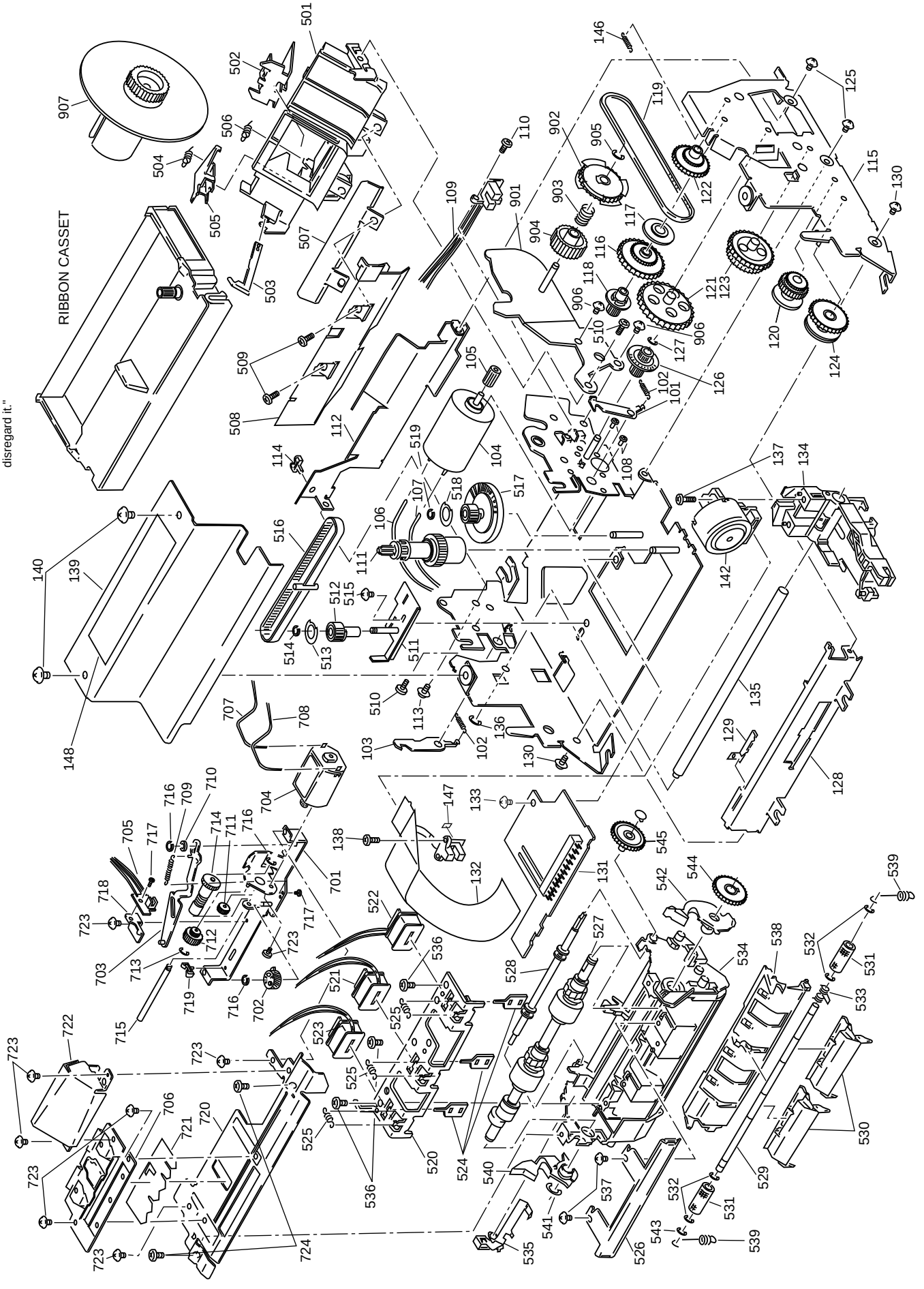
					Europe	INC	UK	Germany	Canada	Other Countries	Saudi Arabia		
	IC2	21120802	IC	SN74LV373APWT-EL	1	1	1	1	1	1	1	AF	A
	IC3	21120801	IC	SN74LV32APWT-EL	1	1	1	1	1	1	1	AB	A
	IC4	21056442	IC	SN751178NS-EL	1	1	1	1	1	1	1	BJ	A
	X1	10006030	LOCK/CERAMIC	CSTCV20.00MXJ040-T	1	1	1	1	1	1	1	AD	A
	D!-4	30007959	DIODE	1SS376TE-17	4	4	4	4	4	4	4	AA	B
	ZD1	23153115	DIODE	PTZTE-255.1B	1	1	1	1	1	1	1	AB	B
N	C6	28073647	CAPACITOR/ELECTROLYTIC	RV2-16V101MS-R	1	1	1	1	1	1	1	AA	C
	CN1	10005643	CONNECTOR	HFW28S-2STE1	1	1	1	1	1	1	1	AD	C
	CN2	77401603	CONNECTOR	B2B-PH-SM3-TB	1	1	1	1	1	1	1	AC	C
N	RA1	10006028	RESISTOR/MODULE	RAC1608-5624DJT	1	1	1	1	1	1	1	AA	C
N		10005641	RESISTOR/MODULE	RAC1608-4704DJT	3	3	3	3	3	3	3	AA	C
		28073629	CAPACITOR/CHIP	TMK107F104ZZ-T	4	4	4	4	4	4	4	AA	X
N	C5	28073627	CAPACITOR/CHIP	TMK107B102KZ-T	1	1	1	1	1	1	1	AA	X
N	C6	28073631	CAPACITOR/CHIP	UMK107CH101JZ-T	1	1	1	1	1	1	1	AA	X
	R1	27953605	RESISTOR/CHIP	MCR03EZHJ471	1	1	1	1	1	1	1	AA	X
		27953479	RESISTOR/CHIP	MCR03EZHJ100	4	4	4	4	4	4	4	AA	X
		27952940	RESISTOR/CHIP	MCR03EZHJ102	2	2	2	2	2	2	2	AA	X
		27952926	RESISTOR/CHIP	MCR03EZHJ101	3	3	3	3	3	3	3	AA	X
	R5	27953542	RESISTOR/CHIP	MCR03EZHJ562	1	1	1	1	1	1	1	AA	X
		27953528	RESISTOR/CHIP	MCR03EZHJ470	2	2	2	2	2	2	2	AA	X
		27954368	RESISTOR/CHIP	MCR03EZHJ203	2	2	2	2	2	2	2	AA	X
	10. Connector board (COM2,COM3)												
N	**56**	10007159	PCB/E445-CNB	E340799A-1	1	1	1	1	1	1	1	AC	X
		30007917	CONNECTOR/D-SUB	ID9P33E4GX28	2	2	2	2	2	2	2	AK	C
		35405181	CONNECTOR	HLW20R-2C7	1	1	1	1	1	1	1	AB	C
		30006937	PLUG	TCP7361-11-0201	1	1	1	1	1	1	1	AH	X
	11. Upper case block												
	57	10017332	CASE/UPPER	E140250A-1	1	1	1	1	1	1	1	BW	C
N	**58**	62481265	PLATE/DISPLAY	E140252-4	1		1			1	1	AV	B
N	**58**	62481678	PLATE/DISPLAY	E140252-8		1						BL	B
N	**58**	62482141	PLATE/DISPLAY	E140252-14				1	1			AV	B
	59	62481670	SWITCH SUB ASSY/MODE KEY	E340762*2	1	1	1	1	1	1	1	AO	B
			CONNECTOR	HLW9S-2C7	1	1	1	1	1	1	1		X
			PCB/E475-E3-1	E340841-1	1	1	1	1	1	1	1		X
			PLATE/INSULATION	E440765-1	1		1			1	1		X
			PLATE/SLIDE	E411394-1	1	1	1	1	1	1	1		X
			SHAFT/MODE KEY	E311850A-1	1	1	1	1	1	1	1		X
			SPRING/CONTACT	E412058-2	1	1	1	1	1	1	1		X
			FRAME/MODE KEY SWITCH	E240513-1	1	1	1	1	1	1	1		X
	60	62202505	BUSH/DISPLAY	E310377-1	1	1	1	1	1	1	1	AC	C
	61	62481473	CABLE/FFC JOINT	E440657-2	1	1	1	1	1	1	1	AC	C
N	**62**	62481289	COVER/JOURNAL	E340749-1	1	1	1	1	1	1	1	AE	C
N	**63**	62481676	COVER/PRINTER	E140248-4	1	1	1	1	1	1	1	AW	C
	64	62481273	COVER/RIBBON	E140260-3	1	1	1	1	1	1	1	AL	C
N	**64A**	55001982	SPACER/LOCKING	RSPLS-10L	2	2	2	2	2	2	2	AB	X
			CLIP	CS-4U	1	1	1	1	1	1	1		X
			SCREW	3X8 ZMC-3	1	1	1	1	1	1	1		X
			SCREW	3X8 ZMC-3	7	7	7	7	7	7	7		X
			SCREW	3X12 ZMC-3	1	1	1	1	1	1	1		X
			SCREW	3X20 ZMC-3	2	2	2	2	2	2	2		X
			SCREW	3X8 ZMC-3	1		1			1	1		X
			SCREW	3X10 ZMC-3	1	1	1	1	1	1	1		X
	12. Lower case block												
N	**65**	10010824	CASE/LOWER E475B	E140254B-3	1	1	1	1	1	1	1	CB	C
	66	62481536	BATTERY SUB ASSY	E440746*1	1	1	1	1	1	1	1	BC	C
	67	30006692	BATTERY/LITHIUM	VL3032/1F2	1	1	1	1	1	1	1	BB	A
	68	62481537	CONNECTOR SUB ASSY	E440747*1	1	1	1	1	1	1	1	AB	C
	69	62213892	ROLLER/RP E233	E411377-1	2	2	2	2	2	2	2	AB	B
	70	62481489	CABLE SUB ASSY/DRAWER	E440737*1	1	1	1	1	1	1	1	AC	C
	71	62481458	COVER/POW-SW E445	E340757-1	1	1	1	1	1	1	1	AE	C
N	**72**	10007124	PLATE/CONNECTOR FIXING	E340736-2	1	1	1	1	1	1	1	AO	X
	73	62481463	PLATE/D-SUB FIXING	E340774-1	1	1	1	1	1	1	1	AE	C
	74	55001980	SPACER/LOCKING	SPLSN-4	2	2	2	2	2	2	2	AA	C
	75	55300526	TERMINAL	CE2	2	2	2	2	2	2	2	AA	C
N	**76**	62481761	WIRE SUB ASSY/FG	E440751*2	1	1	1	1	1	1	1	AA	C
N	**77**	10010827	CHASSIS/B E445	E140261B-1	1	1	1	1	1	1	1	BQ	X
	78	62215004	GROMET	B-1	1	1	1	1	1	1	1	AA	X
	79	62481648	CABLE/FFC JOINT (Printer)	E440666-3	1	1	1	1	1	1	1	AE	C
N	**80**	62481653	SCREW	E440662-1	4	4	4	4	4	4	4	AA	X
	81	62481500	CABLE/FFC JOINT (Connector bord)	E440657-1	1	1	1	1	1	1	1	AG	X
	82	62482218	CABLE/FFC JOINT (ARCNET board)	E440657-7	1	1	1	1	1	1	1	AA	X
			CLIP	CS-4U	1	1	1	1	1	1	1		X
	83	35900195	CONNECTOR SUB ASSY/1625-01R	E31553-1	1	1	1	1	1	1	1	AD	C
	84	10005683	CONNECTOR SUB ASSY/INLINE	E440720*2	1	1	1	1	1	1	1	AF	C
N	**85**	10010828	COVER/ROM E475	E340768A-1	1	1	1	1	1	1	1	AF	C

N	Item	Code No.	Parts Name	Specification	Q'ty							Price Code	R
					Europe	INC	UK	Germany	Canada	Other Countries	Saudi Arabia		
N	**86**	62481646	GUIDE/ROM E475	E240524-1	1	1	1	1	1	1	1	AX	C
			CLIP	CS-4U	1	1	1	1	1	1	1		X
			CONTACT	SPH-002T-P0.5S	2	2	2	2	2	2	2		X
			CONTACT	1561T	3	3	3	3	3	3	1		X
			CONTACT	SPH-002T-P0.5S	3	3	3	3	3	3	3		X
			CONTACT	SRA-51T-4	2	2	2	2	2	2	2		X
			CONTACT/PIN	SYM-01T-0.7	2	2	2	2	2	2	2		X
			HOUSING	PHR-2	1	1	1	1	1	1	1		X
			HOUSING	XLR-02V	1	1	1	1	1	1	1		X
			HOUSING	1625-03R1	1	1	1	1	1	1	1		X
			HOUSING	PHR-3	1	1	1	1	1	1	1		X
			INSERT/BIT	SB-3001	3	3	3	3	3	3	3		X
			LABEL/CONNECTOR E475	E440764-2	1	1	1	1	1	1	1		X
			SCREW	3X5 ZMC	2	2	2	2	2	2	2		X
			SCREW	3X8 ZMC-3	2	2	2	2	2	2	2		X
			SCREW	3X8 ZMC-3	1	1	1	1	1	1	1		X
			SCREW	3X8 ZMC-3	7	7	7	7	7	7	7		X
			SCREW	3X8 ZMC-3	1	1	1	3	1	1	1		X
			SCREW	4X14 ZMC-3	3	3	3	3	3	3	3		X
			SCREW	4X35 ZMC-3	1	1	1	1	1	1	1		X
			SCREW	4X8 ZMC-3	1	1	1	1	1	1	1		X
			SCREW	4	1	1	1	1	1	1	1		X
			SCREW	3X4 ZMC-3	2	2	2	2	2	2	2		X
			SCREW	3X14 ZMC-3	2	2	2	2	2	2	2		X
			SCREW	3X12 ZMC-3	4	4	4	4	4	4	4		X
			SCREW	3X3 NI	1	1	1	1	1	1	1		X
			SCREW	3X5 ZMC-3	1	1	1	1	1	1	1		X
			TAPE	140mm*15mm	1	1	1	1	1	1	1		X
			TIE/INSULOCK	T-18S	1	1	1	1	1	1	1		X
			TUBE/UL		1	1	1	1	1	1	1		X
			TUBE/UL	NO.22	1	1	1	1	1	1	1		X
			WASHER	3X8X0.5	1	1	1	1	1	1	1		X
			WIRE	AWG#26 UL1007	3	3	3	3	3	3	3		X
			WIRE	AWG#18 UL1007	1	1	1	1	1	1	1		X
		13. Printer block											
	87	10003972	PRINTER/DIGITAL	M-U420-071	1	1	1	1	1	1	1	DU	A
	88	10017754	CORE/FERRITE	SSC-50-12	1	1	1	1	1	1	1	AG	C
N	**89**	10017703	WIRE SUB ASSY/FG	E441049*1	1	1	1	1	1	1	1	AA	C
N	**90**	62481652	CUSHION/PR	E440661-1	2	2	2	2	2	2	2	AA	X
N	**91**	62481650	CUSHION/PR(FL)	E440660-1	1	1	1	1	1	1	1	AA	X
N	**92**	62481651	CUSHION/PR(FR)	E440659-1	1	1	1	1	1	1	1	AA	X
			CONTACT	SPHD-001T-P0.5	56	56	56	56	56	56	56		X
			HOUSING	PHDR-28VS	2	2	2	2	2	2	2		X
			SCREW	3X6 ZMC-3	1	1	1	1	1	1	1		X
			TERMINAL	SRA-51T-4	2	2	2	2	2	2	2		X
			WIRE	AWG#26 UL1007	28	28	28	28	28	28	28		X
		14. Others											
	93	62481310	KEY SET SUB ASSY	E340769*1	1			1		1	1	AN	B
	93	62481688	KEY SET SUB ASSY	E340769*2		1	1		1			AS	B
		10002014	COVER/DUST	E340806A-1	1					1	1	AW	B
	94	62481561	COVER/L CONNECTOR	E340773-1	1	1	1	1	1	1	1	AC	C
	95	62481269	COVER/REAR CONNECTOR	E140255-1	1	1	1	1	1	1	1	AK	C
	96	62481756	CONNECTOR SUB ASSY/PHDR	E440716A*2	1	1	1	1	1	1	1	BM	C
	97	36375227	CORE/FERRITE	TFC-25-15-12	1	1	1	1	1	1	1	AW	C
		35005820	CONNECTOR KIT/INLINE	XLP-KIT-1	1	1	1	1	1	1	1	AM	C
	98	10004831	LOCK SUB ASSY/CYLINDER	E340842*1	1	1	1	1	1	1	1	AT	C
			FRAME/CYLINDER	E311847-1	1	1	1	1	1	1	1		X
			PLATE/CYLINDER	E311848-1	1	1	1	1	1	1	1		X
			SHAFT/CYLINDER	E311846-1	1	1	1	1	1	1	1		X
	99	62465000	KEY SUB ASSY/CYLINDER	E412062*1	1	1	1	1	1	1	1	AG	C
N		62481672	PLATE/SLIDE	E440685-1	1	1	1	1	1	1	1	AA	C
N		62464600	RESISTOR SUB ASSY	E411305A*2	1	1	1	1	1	1	1	AG	C
		62477372	PLATE/EARTH	E440398-1	2	2	2	2	2	2	2	AB	X
	100	51501062	SCREW	3X8	3	3	3	3	3	3	3	AA	X
N	**101**	54400558	SCREW	4X69 ZMC-3	1	1	1	1	1	1	1	AA	X
			CONTACT	SZH-003T-P0.5	7	7	7	7	7	7	7		X
			HOUSING	ZHR-7	1	1	1	1	1	1	1		X
			PIN/SPRING	2X5	1	1	1	1	1	1	1		X
			RIVET/POP	TAP-D32-BS		2			2				X
N	**102**	62480865	SCREW	E440564-1	2	2	2	2	2	2	2	AA	X
			SCREW	3X8	2	2	2	2	2	2	2		X
			SCREW	4	4	4	4	4	4	4	4		X
			TIE/INSULOCK	T-18S	1	1	1	1	1	1	1		X
			WIRE	AWG#28 UL1007	7	7	7	7	7	7	7		X

15. PRINTER (M-U420-071)

"The exploded diagram is made based on the standard specification of our company. When the part or unit indifferent form your specification is shown in the diagram,please disregard it."



EXPLODED DIAGRAM FOR M-U420-071

REV. 2

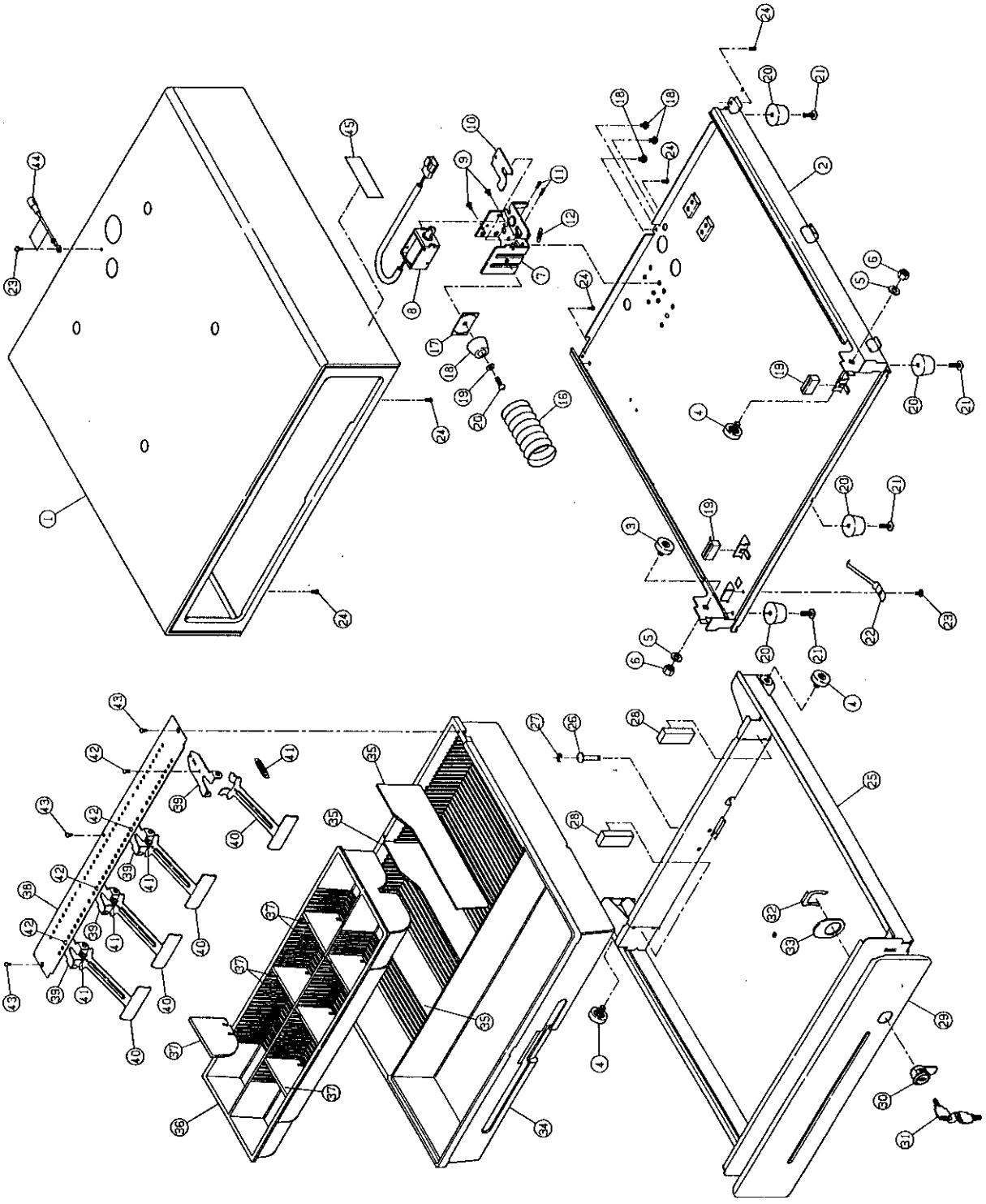
PARTS PRICE LIST
M-U420(071)

N	Item	Code No.	Parts Name		Specification	Q	Price Code	R
			1. DRIVING MECHANISM COMPONENTS					
	101	19092776	LEVER/FIXING J		1004032	1	AE	C
	102	19092777	SPRING/FIXING LEVER		1004033	2	AC	C
	103	19092775	LEVER/FIXING R		1004031	1	AE	C
N	*104*	*94870506*	*MAIN MOTOR ASSY*		*1049277*	*1*	*BV*	*A*
N	*105*	*94870505*	*GEAR/MAIN MOTOR*		*1049273*	*1*	*AB*	*B*
	106	19060719	WIRE/LEAD A		2021071	1	AA	X
	107	19060720	WIRE/LEAD B		2021072	1	AA	X
	108	19060721	SCREW	M2.6X4 F/NI	1006328	2	AA	X
	109	19060722	DETECTOR ASSY/TIMING		1028549	1	BI	B
	110	19087657	SCREW	M3X5	B300204111	1	AA	X
	111	19060723	SHAFT/RIBBON DRIVE ASSY		1028550	1	AZ	X
	112	19060724	FRAME/BACK		1027999	1	AO	X
	113	19085554	SCREW	M3X5	B300304111	1	AA	X
	114	19060725	CLAMP/MINI(UAMS-05-0)		1029197	1	AA	X
	115	19060726	FRAME SUB ASSY/GEAR TRAIN		1028553	1	AA	B
	116	19060727	GEAR/TRANSMISSION PAPER TAKE-UP		1028012	1	AD	B
	117	19060728	FLANGE/TAKE-UP TRANSMISSION		1028015	1	AB	B
	118	19060729	GEAR/PAPER FEED TRANSMISSION		1028016	1	AE	B
	119	19030118	BELT/PAPER TAKE-UP		F701009020	1	AS	B
	120	19060730	GEAR/DECELERATION CARRIAGE		1028031	1	AH	B
	121	19060731	GEAR/TRANSMISSION		1028009	1	AB	B
	122	19060802	GEAR/DECELERATION		1028011	1	AC	B
	123	19060732	GEAR/TRANSMISSION CARRIAGE		1028010	1	AD	B
	124	19060733	GEAR/RIBBON DECELERATION		1028056	1	AG	B
	125	19085554	SCREW	M3X5	B300304111	2	AA	X
N	*126*	*94870504*	*GEAR/TIMING DETECTION*		*1049274*	*1*	*AB*	*B*
	127	19092805	RING/RETAINING	TYPE-E(2.5)	1004399	1	AA	C
	128	19060803	FRAME/GUIDE		1028001	1	AI	X
	129	19060735	PLATE/RESET SIGNAL ADJUSTMENT		1028032	1	AB	X
	130	19085554	SCREW	M3X5	B300304111	2	AA	X
	131	94870281	MAIN BOARD ASSY		1043913	1	BP	C
	132	19060737	PRINT HEAD ASSY/FPC		1028557	1	BT	A
	133	19085554	SCREW	M3X5	B300304111	1	AA	X
	134	19060738	CARRIAGE ASSY		1028558	1	BJ	C
	135	19060739	SHAFT/CARRIAGE GUIDE		1028022	1	AT	X
	136	19092805	RING/RETAINING	TYPE-E(2.5)	1004399	1	AA	C
	137	19060740	SCREW		1012350	1	AA	X
	138	19060740	SCREW		1012350	1	AA	X
	139	19060741	HEAD COVER ASSY		1031212	1	BD	X
	140	19085554	SCREW	M3X5	B300304111	2	AA	X
	142	19060742	PRINT HEAD UNIT AB		1028577	1	DA	A
	146	19071217	SPRING/PAPER FEEDING TRIGGER		F701251080	1	AB	B
	147	94870283	CAPACITOR/CHIP		2021922	1	AA	X
	148	19092847	SEAL/CAUTION		1007667	1	AJ	X
N	*149*	*94870507*	*GEAR/MOTOR ASSY*		*1052543*	*1*	*AB*	*B*
N	*150*	*94870508*	*MAIN MOTOR ASSY*		*1052544*	*1*	*BV*	*A*
			2. PAPER FEEDING MACHANISM COMPONENTS					
	501	19060744	PAPER GUIDE/LOWER ASSY		1028537	1	AY	X
	502	19060745	LEVER/STAMP		1028064	1	AF	C
	503	19060746	LEVER/STAMP TRANSMISSION		1028059	1	AB	C
	504	19060747	SPRING/STAMP FORCE ADJUSTMENT		1028063	1	AB	C
	505	19060748	LEVER/SSTAMP DRIVE		1028060	1	AD	C
	506	19060749	SPRING/STAMP RETURN		1028062	1	AA	C
	507	19060750	PLATE/VALIDATION STOPPER		1028036	1	AC	X
	508	19060751	GUIDE/VALIDATION		1028044	1	AM	C
	509	19060740	SCREW		1012350	2	AA	X
	510	19060740	SCREW		1012350	2	AA	X
	511	19060752	PLATE SUB ASSY/DRIVEN		1028539	1	AK	C
	512	19060753	PULLEY/CARRIAGE DRIVEN		1028025	1	AC	B
	513	19060754	FLANGE/PULLEY		1028027	1	AB	B
	514	19092805	RING/RETAINING	TYPE-E(2.5)	1004399	1	AA	C
	515	19064056	SCREW	M3X3	B040350511	1	AA	X
	516	19060755	BELT ASSY/TIMING CARRIAGE DRIVE		1028540	1	BE	B
	517	19060756	PULLEY/CARRIAGE DRIVEN		1028030	1	AD	B
	518	19060754	FLANGE/PULLEY		1028027	1	AB	B
	519	19092805	RING/RETAINING	TYPE-E(2.5)	1004399	1	AA	C
	520	94870284	YOKE/PAPER FEED TRIGGER		1045794	1	AL	C
	521	19060758	COIL/PAPER FEED TRIGGER PRT		2021086	1	AS	C
	522	19060759	COIL/PAPER FEED TRIGGER JNL		2021087	1	AS	C
	523	19060760	COIL/STAMP DRIVE		2021088	1	AS	C
	524	19060761	PLATE/PAPER FEED TRIGGER		1028043	3	AE	X
	525	19071217	SPRING/PAPER FEED TRIGGER		F701251080	3	AB	C
	526	19060762	PLATEN ASSY		1028543	1	AS	C

N	Item	Code No.	Parts Name		Specification	Q	Price Code	R
	527	19060763	SHAFT/PAPER FEED ASSY		1028544	1	CH	A
N	*528*	*94870513*	*SHAFT/PAPER EXTENSION ASSY*		*1059877*	*1*	*BF*	*C*
	529	19060804	SHAFT/PAPER FEED PRESSURE		1028046	1	AL	X
	530	19060765	PLATE/PAPER GUIDE		1028048	2	AM	C
N	*531*	*94870510*	*ROLLER/PAPER HOLD*		*1052541*	*2*	*AE*	*B*
	532	19092805	RING/RETAINING	TYPE-E(2.5)	1004399	4	AA	C
	533	19060767	SPRING/PAPER GUIDE PLATE		1028049	1	AE	C
N	*534*	*94870514*	*PAPER GUIDE/UPPER SET*		*1061952*	*1*	*AW*	*C*
	535	19060769	PLATE/PAPER FEED GROUND		1028053	1	AF	C
	536	19060770	SCREW		1024130	3	AA	X
	537	19062203	SCREW	M3X8	B312104311	2	AA	X
N	*538*	*94870548*	*EXIT ASSY/PAPER GUIDE*		*1063432*	*1*	*AM*	*C*
	539	19060772	SPRING/PAPER FEED PRESSURE		1028047	2	AB	C
	540	19060773	LEVER/RELEASE PRT		1028050	1	AD	C
	541	19030715	RING/RETAINING		B150300711	1	AA	C
	542	19060774	LEVER/RELEASE JNL		1028051	1	AD	C
	543	19092805	RING/RETAINING	TYPE-E(2.5)	1004399	1	AA	C
	544	19060775	GEAR/PAPER FEED		1028038	1	AC	B
	545	19060776	GEAR/PAPER EXTENSION SHAFT		1028054	1	AB	B
	~~546~~	~~19060777~~	~~ROLLER/PAPER HOLD~~		~~1037340~~	~~1~~	~~AL~~	~~B~~
	~~547~~	~~19060778~~	~~SPACER/PAPER HOLD ROLLER~~		~~1037341~~	~~1~~	~~AQ~~	~~C~~
			3. CUTTING MECHANISM COMPONENTS					
	701	19060779	FRAME SUB-ASS'Y/CUTTER		1028562	1	BK	X
	702	19060780	GEAR ASS'Y/CUTTER DRIVE		1028563	1	AP	B
	703	19060781	LEVER SUB-ASS'Y/CUTTER		1028564	1	AP	B
	704	19060782	CUTTER MOTOR ASSY		1028566	1	BV	A
	705	19060783	DETDCTOR ASSY/CUTTER		1028567	1	BP	B
	706	19060784	HOLDER SUB-ASSY/CUTTER BLADE		1028568	1	AS	C
	707	19060785	WIRE/LEAD I		2021079	1	AB	X
	708	19060786	WIRE/LEAD J		2021080	1	AB	X
	709	19060787	SPRING/CUTTER RELEASE		1028100	1	AL	C
	710	19060788	WASHER/PLANE	3X6X0.5	B100157411	1	AB	X
	711	19060789	GEAR/CUTTER TRANSMISSION #1		1028079	1	AD	B
	712	19060790	GEAR/CUTTER DECELERATION		1028078	1	AE	B
	713	19062256	RING/RETAINING	TYPE-E(1.5)	B150300314	1	AA	C
	714	19060791	GEAR/CUTTER TRANSMISSION #2		1028080	1	AF	B
	715	19060792	SHAFT/CUTTER TRANSMISSION GEAR #2		1028084	1	AF	X
	716	19074057	RING/RETAINING	TYPE-E(2)	B150300411	3	AA	C
	717	19077216	SCREW	M2X4	B010101311	2	AA	X
	718	19060793	PLATE/CIRCUIT BOARD		1028096	1	AD	C
	719	19060794	CLAMP/MINI		1029198	1	AB	X
N	*720*	*94870515*	*RECEIVER/CUTTER BLADE*		*1059875*	*1*	*AS*	*B*
	721	19060796	BLADE/CUTTER		1028090	1	AU	A
	722	19060797	STAND/JOURNAL WRITING		1028095	1	AN	C
	723	19060798	SCREW		*1030021*	8	AA	X
	724	19060770	SCREW		1024130	2	AA	X
			4. PAPER TAKE UP MECHANISM COMPONENTS					
	901	19060799	FRAME SUB ASSY/TAKE-UP		1028548	1	AS	X
	902	19060800	PULLEY/TAKE-UP DRIVE		1028102	1	AD	B
	903	94870285	SPRING/TAKE UP TORQUE		1042651	1	AK	B
	904	19091688	GEAR/PAPER TAKE-UP DRIVE		F750302030	1	AD	B
	905	19030787	RING/RETAINING	TYPE-E(3)	B150300611	1	AA	C
	906	19085554	SCREW	M3X5	B300304111	2	AA	X
	907	19060801	SHAFT/PAPER ROLLING		1012719	1	BD	X

16. DRAWER

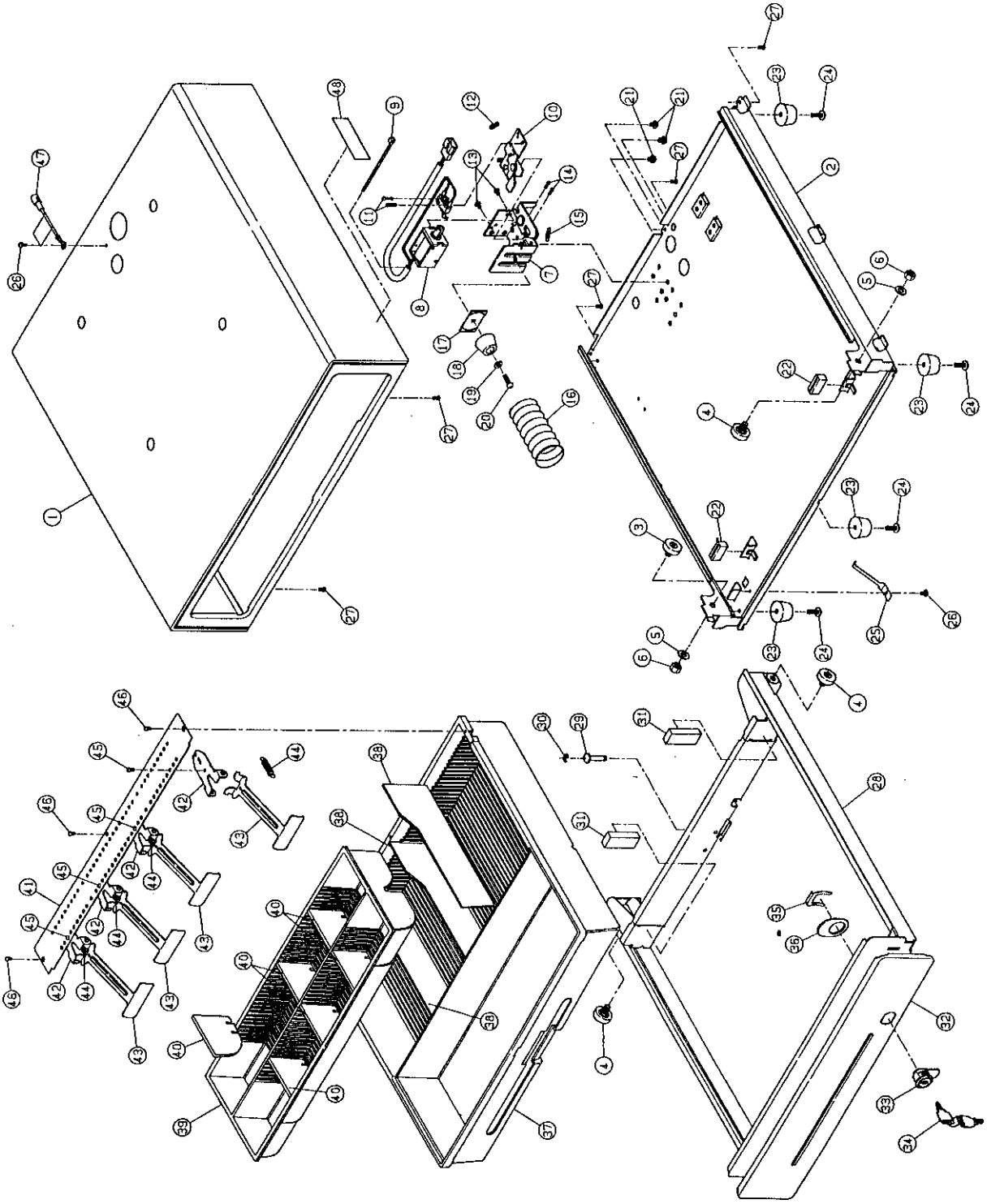
DL-2766 (M type) Europe,Saudi-Arabia, Other countries



DL-2766 (M type) Europe, Saudi-Arabia, Other countries

N	Item	Code No.	Parts name	Specification	Q'ty	Price Code	RANK
	2	19061309	CHASSIS/BOTTOM	264D-1101	1	CW	X
	3	55000619	ROLLER/DERLIN	DR-19-B1	1	AG	B
	4	55000878	ROLLER/DERLIN	DR-19-B2	3	AP	B
N	5	19079682	WASHER	SW-M6	2	AA	X
	6	19077150	NUT	HN-M6	2	AA	X
	7	19081339	BRACKET/LOCK	37A-B150	1	BL	X
N	8	19061304	SOLENOID	262A-S153	1	BK	B
N	9	94870398	SCREW	CPS-M3X5	2	AA	X
N	10	19064012	BRACKET/SHAFT GUIDE	37A-1503	1	AH	X
N	11	19064013	SCREW	CPST-M2.6X6	2	AA	X
	12	19083432	SPRING/LOCK	S37-1551	1	AV	C
N	13	19064014	SPRING/DRAWER	S40-1351	1	AW	C
N	14	19081343	HOLDER/SPRING	44A-1302	1	AW	B
N	15	94870405	RUBBER/STOPPER	R37-1561	1	AD	X
N	16	19077157	WASHER	PW-M4	1	AA	X
N	17	19027095	SCREW	M4X12	1	AA	X
N	18	94870399	SCREW	CPS-M4X6	3	AA	X
N	19	19064017	RUBBER/STOPPER	262A-1651	2	AN	X
N	20	19059570	FOOT/RUBBER	NR33-1461	4	AN	X
N	21	94870396	SCREW	CCST-M4X12	4	AA	X
N	22	19064018	EARTH/LEAF SPRING	33V-1103	1	AN	X
N	23	19064008	SCREW	CCST-M3X6	2	AA	X
N	24	19081358	SCREW	CPST-M3X6	5	AA	X
N	25	94870391	DRAWER	264C-2100	1	CM	X
	26	19077153	SHAFT/HOLDER	12H-5339	1	AD	X
N	27	19074264	RING/M4E	M4	1	AA	X
N	28	94870393	CUSHION/TRAY	264D-2651	2	AE	X
	29	94870392	PANEL/FRONT	264D-2401CY	1	BH	X
	30	19077147	LOCK/CYLINDER	HL-C168L	1	AN	C
	31	19077146	KEY/CYLINDER LOCK	HL-C168K	2	AU	C
	32	19077145	CLIP	168-2552	1	AJ	X
N	33	19079657	WASHER/LOCK KEY	PW-2506	1	AF	X
	34	94870394	CASE/MONEY	264D-4181	1	BL	C
	35	19079659	PLATE/MONEY CASE PAR	70-9602	3	AE	C
	36	19079660	CASE/COIN	P16-4183	1	AR	C
	37	19064021	PLATE/COIN CASE PARTIT	P16-4184	6	BJ	C
N	38	19081308	BRACKET/BILL HOLDER	16C-4201	1	AS	X
	39	19074278	STOPPER/BILL HOLDER	13C-4202	4	AH	X
	40	19074279	HOLDER/BILL	16B-4203	4	AG	B
	41	19074280	SPRING/BILL HOLDER	S16-4254	4	AA	B
N	42	19074281	SCREW	CPTS-M3X5L	4	AA	X
N	43	19074282	SCREW	CPTS-M3X6	3	AA	X
N	44	19064007	WIRE/FG	FG-3451	1	AJ	X
N	45	94870410	LABEL/DRAWER	PO-2766	1	AC	X

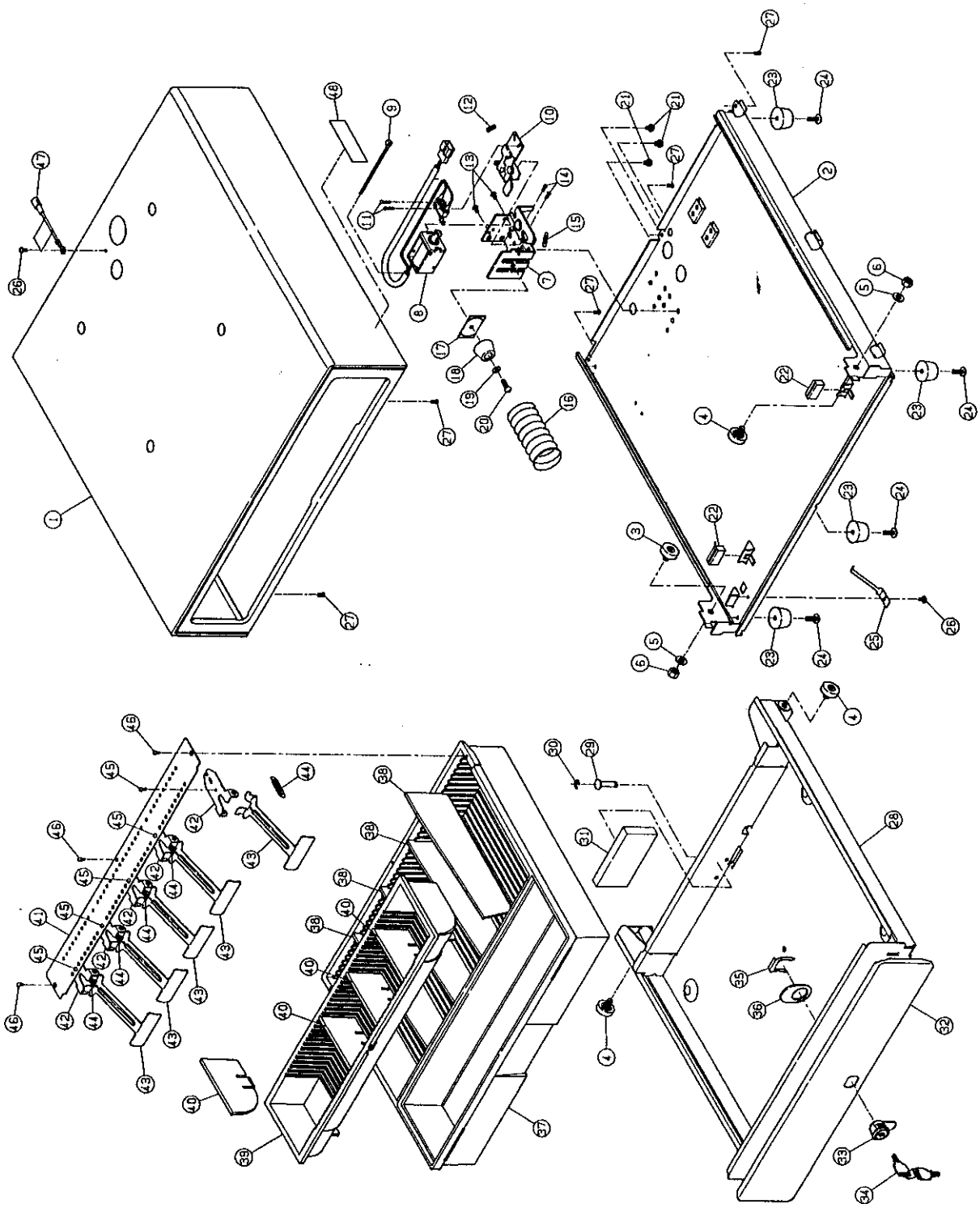
DL-2767 (M type) UK, Germany



DL-2767 (M type) UK, Germany

N	Item	Code No.	Parts name	Specification	Q'ty	Price Code	RANK
	2	19061309	CHASSIS/BOTTOM	264D-1101	1	CW	X
	3	55000619	ROLLER/DERLIN	DR-19-B1	1	AG	B
	4	55000878	ROLLER/DERLIN	DR-19-B2	3	AP	B
N	5	19079682	WASHER	SW-M6	2	AA	X
	6	19077150	NUT	HN-M6	2	AA	X
	7	19081339	BRACKET/LOCK	37A-B150	1	BL	X
N	8	94870387	SOLENOID	262A-S154C	1	CD	B
N	9	94870400	TIE/INSULOCK	P12-1555	1	AA	X
N	10	94870395	BRACKET/SHAFT GUIDE	808R-1910	1	BH	X
N	11	94870397	SCREW	CP-M2.3X10	2	AA	X
N	12	94870413	SPRING/MICRO SWITCH	S808-1557	1	AC	C
N	13	94870398	SCREW	CPS-M3X5	2	AA	X
N	14	19064013	SCREW	CPST-M2.6X6	2	AA	X
	15	19083432	SPRING/LOCK	S37-1551	1	AV	C
N	16	19064014	SPRING/DRAWER	S40-1351	1	AW	C
N	17	19081343	HOLDER/SPRING	44A-1302	1	AW	B
N	18	94870405	RUBBER/STOPPER	R37-1561	1	AD	X
N	19	19077157	WASHER	PW-M4	1	AA	X
N	20	19027095	SCREW	M4X12	1	AA	X
N	21	94870399	SCREW	CPS-M4X6	3	AA	X
N	22	19064017	RUBBER/STOPPER	262A-1651	2	AN	X
N	23	19059570	FOOT/RUBBER	NR33-1461	4	AD	X
N	24	94870396	SCREW	CCST-M4X12	4	AA	X
N	25	19064018	EARTH/LEAF SPRING	33V-1103	1	AN	X
N	26	19064008	SCREW	CCST-M3X6	2	AA	X
N	27	19081358	SCREW	CPST-M3X6	5	AA	X
N	28	94870391	DRAWER	264C-2100	1	CM	X
	29	19077153	SHAFT/HOLDER	12H-5339	1	AD	X
N	30	19074264	RING/M4E	M4	1	AA	X
N	31	94870393	CUSHION/TRAY	264D-2651	2	AE	X
	32	94870392	PANEL/FRONT	264D-2401CY	1	BH	X
	33	19077147	LOCK/CYLINDER	HL-C168L	1	AV	C
	34	19077146	KEY/CYLINDER LOCK	HL-C168K	2	AU	C
	35	19077145	CLIP	168-2552	1	AJ	X
N	36	19079657	WASHER/LOCK KEY	PW-2506	1	AF	X
	37	94870394	CASE/MONEY	264D-4181	1	BL	C
	38	19079659	PLATE/MONEY CASE PART	70-9602	3	AE	C
	39	19079660	CASE/COIN	P16-4183	1	AR	C
	40	19064021	PLATE/COIN CASE PARTIT	P16-4184	6	BJ	C
N	41	19081308	BRACKET/BILL HOLDER	16C-4201	1	AS	X
	42	19074278	STOPPER/BILL HOLDER	13C-4202	4	AH	X
	43	19074279	HOLDER/BILL	16B-4203	4	AG	B
	44	19074280	SPRING/BILL HOLDER	S16-4254	4	AA	B
N	45	19074281	SCREW	CPTS-M3X5L	4	AA	X
N	46	19074282	SCREW	CPTS-M3X6	3	AA	X
N	47	19064007	WIRE/FG	FG-3451	1	AJ	X
N	48	94870411	LABEL/DRAWER	PO-2767	1	AC	X

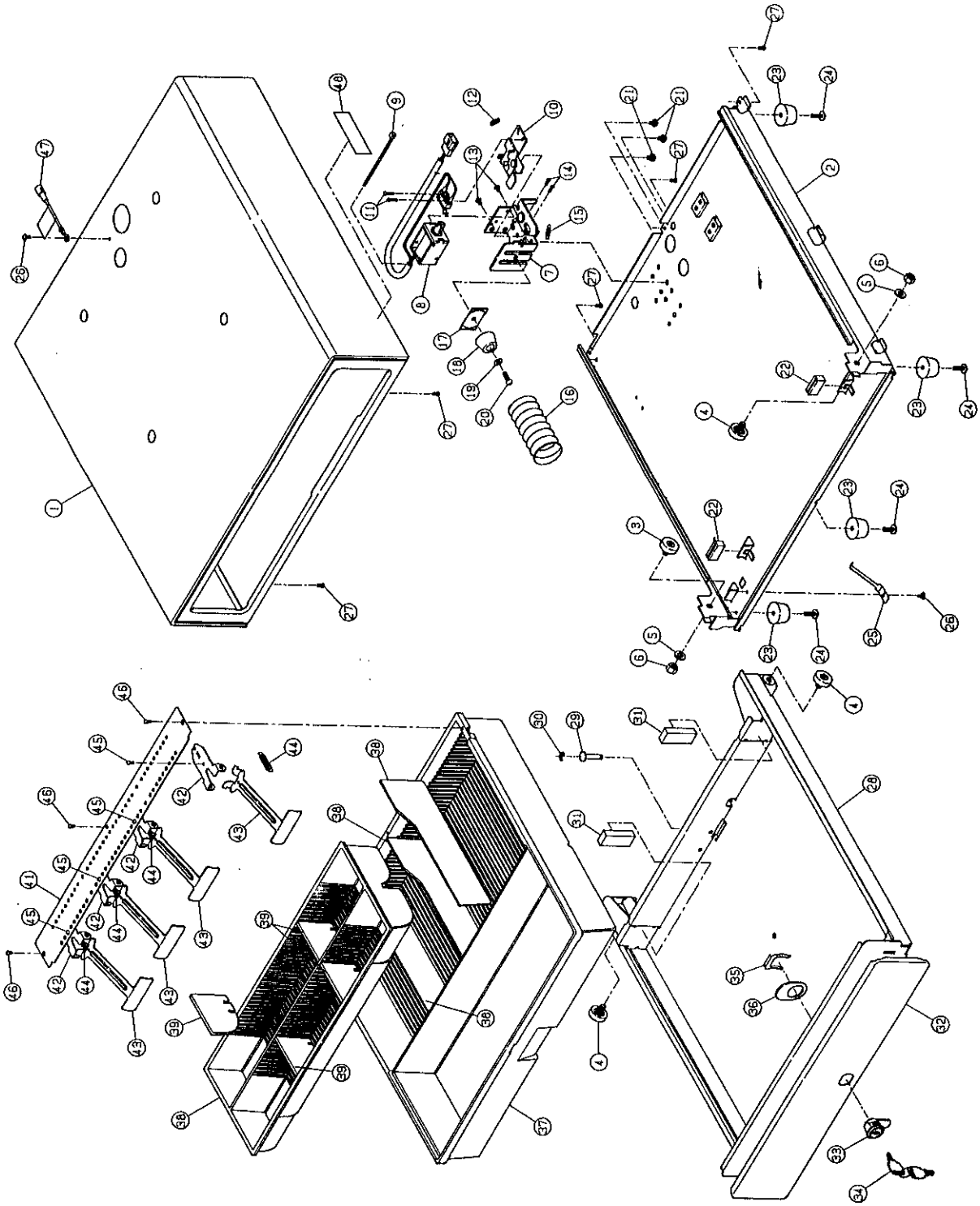
DL-2417 (M type) USA



DL-2417 (M type) USA

N	Item	Code No.	Parts name	Specification	Q'ty	Price Code	RANK
	2	19061309	CHASSIS/BOTTOM	264D-1101	1	CW	X
	3	55000619	ROLLER/DERLIN	DR-19-B1	1	AG	B
	4	55000878	ROLLER/DERLIN	DR-19-B2	3	AP	B
N	5	19079682	WASHER	SW-M6	2	AA	X
	6	19077150	NUT	HN-M6	2	AA	X
	7	19081339	BRACKET/LOCK	37A-B150	1	BL	X
N	8	94870387	SOLENOID	262A-S154C	1	CD	B
N	9	94870400	TIE/INSULOCK	P12-1555	1	AA	X
N	10	94870395	BRACKET/SHAFT GUIDE	808R-1910	1	BH	X
N	11	94870397	SCREW	CP-M2.3X10	2	AA	X
N	12	94870413	SPRING/MICRO SWITCH	S808-1557	1	AC	C
N	13	94870398	SCREW	CPS-M3X5	2	AA	X
N	14	19064013	SCREW	CPST-M2.6X6	2	AA	X
	15	19083432	SPRING/LOCK	S37-1551	1	AV	C
N	16	19064014	SPRING/DRAWER	S40-1351	1	AW	C
N	17	19081343	HOLDER/SPRING	44A-1302	1	AW	B
N	18	94870405	RUBBER/STOPPER	R37-1561	1	AD	X
N	19	19077157	WASHER	PW-M4	1	AA	X
N	20	19027095	SCREW	M4X12	1	AA	X
N	21	94870399	SCREW	CPS-M4X6	3	AA	X
N	22	19064017	RUBBER/STOPPER	262A-1651	2	AN	X
N	23	19059570	FOOT/RUBBER	NR33-1461	4	AD	X
N	24	94870396	SCREW	CCST-M4X12	4	AA	X
N	25	19064018	EARTH/LEAF SPRING	33V-1103	1	AN	X
N	26	19064008	SCREW	CCST-M3X6	2	AA	X
N	27	19081358	SCREW	CPST-M3X6	5	AA	X
N	28	94870389	DRAWER	262D-2100	1	CM	X
	29	19077153	SHAFT/HOLDER	12H-5339	1	AD	X
N	30	19074264	RING/M4E	M4	1	AA	X
N	31	94870412	SPONGE	R16-2650	1	AD	X
N	32	94870390	PANEL/FRONT	262D-2401	1	BH	X
	33	19077147	LOCK/CYLINDER	HL-C168L	1	AV	C
	34	19077146	KEY/CYLINDER LOCK	HL-C168K	2	AU	C
	35	19077145	CLIP	168-2552	1	AJ	X
N	36	19079657	WASHER/LOCK KEY	PW-2506	1	AF	X
N	37	94870401	CASE/MONEY	P16-4160	1	BK	C
N	38	94870402	PLATE/MONEY CASE PART	P16-4162	4	AD	C
N	39	94870403	CASE/COIN	P16-4163	1	AX	C
N	40	94870404	PLATE/COIN CASE PARTIT	P16-4164	4	AF	C
N	41	19081308	BRACKET/BILL HOLDER	16C-4201	1	AS	X
	42	19074278	STOPPER/BILL HOLDER	13C-4202	5	AH	X
	43	19074279	HOLDER/BILL	16B-4203	5	AG	B
	44	19074280	SPRING/BILL HOLDER	S16-4254	5	AA	B
N	45	19074281	SCREW	CPTS-M3X5L	5	AA	X
N	46	19074282	SCREW	CPTS-M3X6	3	AA	X
N	47	19064007	WIRE/FG	FG-3451	1	AJ	X
N	48	94870406	LABEL/DRAWER	PO-2417	1	AC	X

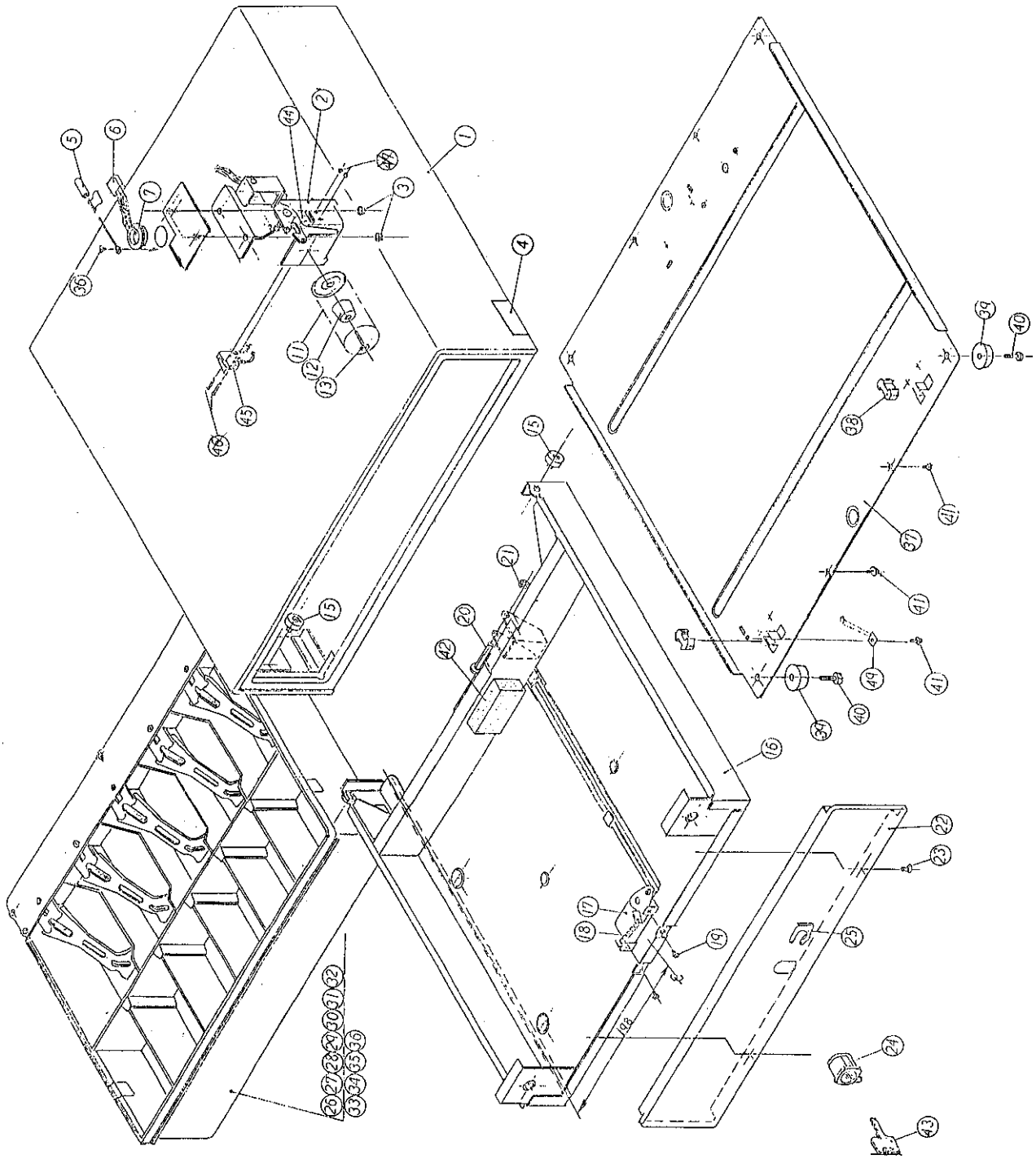
DL-2517 (M type) Canada



DL-2517 (M type) Canada

N	Item	Code No.	Parts name	Specification	Q'ty	Price Code	RANK
	2	19061309	CHASSIS/BOTTOM	264D-1101	1	CW	X
	3	55000619	ROLLER/DERLIN	DR-19-B1	1	AG	B
	4	55000878	ROLLER/DERLIN	DR-19-B2	3	AP	B
N	5	19079682	WASHER	SW-M6	2	AA	X
	6	19077150	NUT	HN-M6	2	AA	X
	7	19081339	BRACKET/LOCK	37A-B150	1	BL	X
N	8	94870387	SOLENOID	262A-S154C	1	CD	B
N	9	94870400	TIE/INSULOCK	P12-1555	1	AA	X
N	10	94870395	BRACKET/SHAFT GUIDE	808R-1910	1	BH	X
N	11	94870397	SCREW	CP-M2.3X10	2	AA	X
N	12	94870413	SPRING/MICRO SWITCH	S808-1557	1	AC	C
N	13	94870398	SCREW	CPS-M3X5	2	AA	X
N	14	19064013	SCREW	CPST-M2.6X6	2	AA	X
	15	19083432	SPRING/LOCK	S37-1551	1	AV	C
N	16	19064014	SPRING/DRAWER	S40-1351	1	AW	C
N	17	19081343	HOLDER/SPRING	44A-1302	1	AW	B
N	18	94870405	RUBBER/STOPPER	R37-1561	1	AD	X
N	19	19077157	WASHER	PW-M4	1	AA	X
N	20	19027095	SCREW	M4X12	1	AA	X
N	21	94870399	SCREW	CPS-M4X6	3	AA	X
N	22	19064017	RUBBER/STOPPER	262A-1651	2	AN	X
N	23	19059570	FOOT/RUBBER	NR33-1461	4	AD	X
N	24	94870396	SCREW	CCST-M4X12	4	AA	X
N	25	19064018	EARTH/LEAF SPRING	33V-1103	1	AN	X
N	26	19064008	SCREW	CCST-M3X6	2	AA	X
N	27	19081358	SCREW	CPST-M3X6	5	AA	X
N	28	94870391	DRAWER	264C-2100	1	CM	X
	29	19077153	SHAFT/HOLDER	12H-5339	1	AD	X
N	30	19074264	RING/M4E	M4	1	AA	X
N	31	94870393	CUSHION/TRAY	264D-2651	2	AE	X
N	32	94870388	PANEL/FRONT	262B-2401CY	1	BH	X
	33	19077147	LOCK/CYLINDER	HL-C168L	1	AV	C
	34	19077146	KEY/CYLINDER LOCK	HL-C168K	2	AU	C
	35	19077145	CLIP	168-2552	1	AJ	X
N	36	19079657	WASHER/LOCK KEY	PW-2506	1	AF	X
N	37	94870386	CASE/MONEY	262A-4181	1	BL	C
	38	19079659	PLATE/MONEY CASE PAR	70-9602	3	AE	C
	39	19079660	CASE/COIN	P16-4183	1	AR	C
	40	19064021	PLATE/COIN CASE PARTIT	P16-4184	4	BJ	C
N	41	19081308	BRACKET/BILL HOLDER	16C-4201	1	AS	X
	42	19074278	STOPPER/BILL HOLDER	13C-4202	4	AH	X
	43	19074279	HOLDER/BILL	16B-4203	4	AG	B
	44	19074280	SPRING/BILL HOLDER	S16-4254	4	AA	B
N	45	19074281	SCREW	CPTS-M3X5L	4	AA	X
N	46	19074282	SCREW	CPTS-M3X6	3	AA	X
N	47	19064007	WIRE/FG	FG-3451	1	AJ	X
N	48	94870408	LABEL/DRAWER	PO-2517	1	AC	X

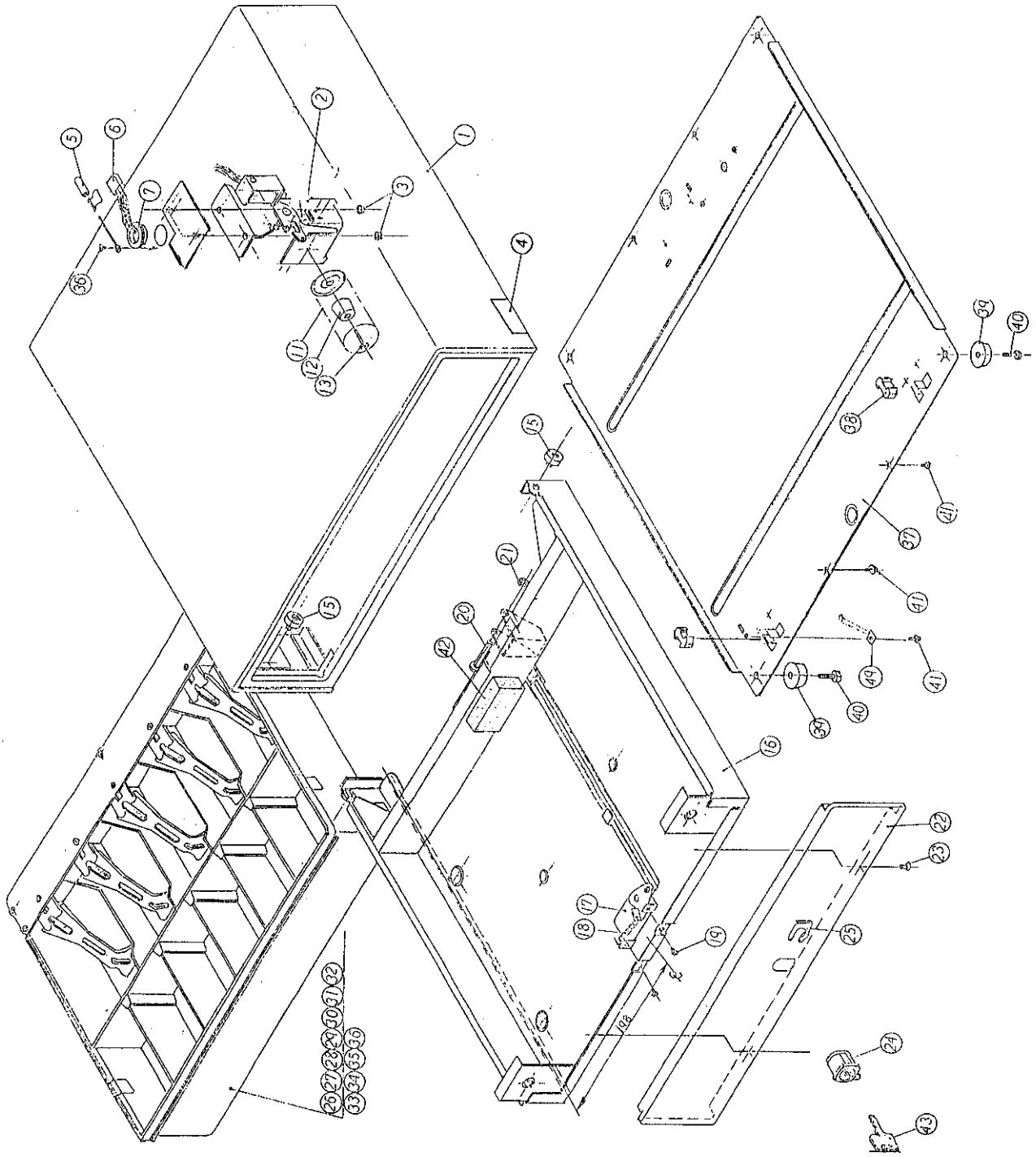
DL-3616 (L type) USA, Canada



DL-3616 (L type) USA, Canada

N	Item	Code No.	Parts name	Specificatior	Q'ty	Price Code	RANK
	2	19077272	LOCK ASSY	ZD00290-0	1	BZ	B
	3	19060672	NUT	M4XP0.7	2	AA	X
N	4	94870383	LABEL	DL-3616	1	AL	X
N	5	19079613	WIRE/FG	ZD31670	1	AI	X
	6	19070223	CONNECTOR	1625-03PI	1	AL	X
	7	19027112	GROMET	B-1	1	AB	X
	11	19027076	SPRING	ZD01370B	1	AC	C
	12	19026829	RUBBER/DAMPER	K2320	1	AC	X
	13	19070234	SCREW/TAPPING	M4X16	1	AA	X
	15	19026842	ROLLER/DERLIN	DR-19B	4	AH	B
	16	19060679	DRAWER SUB ASSY	ZD58120	1	CF	X
	17	19026992	LEVER/OPEN	ZD00250	1	AN	X
	18	19077930	SPRING/OPEN LEVER	ZD00254	1	AB	C
	19	19060680	SCREW/TAPPING	M3X4	2	AA	X
	20	19064150	RIVET	PAI5X30	1	AA	X
	21	55801452	RING/CS	CSTW-5	1	AA	X
	22	19060683	PANEL/FRONT	ZD56721	1	BH	X
	23	19060684	SCREW/TAPPING	M3.5X8	2	AA	X
	24	19027027	KEY/CYLINDER	ZD00226	1	BB	C
	25	19077928	CLIP	ZD00226-2	1	AJ	X
	26	19060685	CASE/BILL	ZD04851	1	BO	C
	27	19077926	CASE/COIN	ZD04843PS	1	BN	C
	28	19077925	PLATE/BILL PARTITION	ZD04842	4	AH	C
	29	19077924	PLATE/COIN PARTITIO	ZD04844	5	AD	C
	30	19077923	HOLDER/PARTITION PL	ZD04845	5	AC	X
	31	19026991	PLATE/BILL HOLDER F	ZD00245	1	AK	X
	32	94870385	STOPPER/BILL HOLDE	ZV27041-1	5	AE	X
	33	62214902	HOLDER/BILL	ZD18931	5	AC	B
	34	62214904	SPRING/BILL HOLDER	ZD18932	5	AB	B
	35	19026987	SCREW/TAPPING	M3X8	5	AA	X
	36	19027093	SCREW/TAPPING	M3X6	6	AA	X
	37	19077922	PLATE/BOTTOM	ZD18031	1	CB	X
	38	19060689	RUBBER/DAMPER	ZD02032	2	AE	X
	39	19027046	FOOT/RUBBER	K3215	4	AJ	X
	40	19070234	SCREW/TAPPING	M4X16	4	AA	X
	41	19060691	SCREW/TAPPING	M3X5	5	AA	X
	42	19077920	CUSHION	ZD05422	1	AE	X
	43	19026214	KEY	ZD00226-1	1	AU	C
	44	19077943	LEVER/SWITCH	ZD00283	1	AL	C
	45	19077942	SWITCH/MICRO	SS-01GL-ET	1	BF	B
	49	19079615	EARTH/SPRING	ZD02162C	1	AE	C

DL-3617 (L type) Saudi-Arabia



DL-3617 (L type) Saudi-Arabia

N	Item	Code No.	Parts name	Specification	Q'ty	Price Code	RANK
	2	19077935	LOCK ASSY	ZD00280-0	1	BT	B
	3	19060672	NUT	M4XP0.7	2	AA	X
N	4	94870384	LABEL	DL-3617	1	AL	X
N	5	19079613	WIRE/FG	ZD31670	1	AI	X
	6	19070223	CONNECTOR	1625-03PI	1	AL	X
	7	19027112	GROMET	B-1	1	AB	X
	11	19027076	SPRING	ZD01370B	1	AC	C
	12	19026829	RUBBER/DAMPER	K2320	1	AC	X
	13	19070234	SCREW/TAPPING	M4X16	1	AA	X
	15	19026842	ROLLER/DERLIN	DR-19B	4	AH	B
	16	19060679	DRAWER SUB ASSY	ZD58120	1	CF	X
	17	19026992	LEVER/OPEN	ZD00250	1	AN	X
	18	19077930	SPRING/OPEN LEVER	ZD00254	1	AB	C
	19	19060680	SCREW/TAPPING	M3X4	2	AA	X
	20	19064150	RIVET	PAI5X30	1	AA	X
	21	55801452	RING/CS	CSTW-5	1	AA	X
	22	19060683	PANEL/FRONT	ZD56721	1	BH	X
	23	19060684	SCREW/TAPPING	M3.5X8	2	AA	X
	24	19027027	KEY/CYLINDER	ZD00226	1	BB	C
	25	19077928	CLIP	ZD00226-2	1	AJ	X
	26	19060685	CASE/BILL	ZD04851	1	BO	C
	27	19077926	CASE/COIN	ZD04843PS	1	BN	C
	28	19077925	PLATE/BILL PARTITION	ZD04842	4	AH	C
	29	19077924	PLATE/COIN PARTITIO	ZD04844	5	AD	C
	30	19077923	HOLDER/PARTITION PL	ZD04845	5	AC	X
	31	19026991	PLATE/BILL HOLDER F	ZD00245	1	AK	X
	32	94870385	STOPPER/BILL HOLDE	ZV27041-1	5	AE	X
	33	62214902	HOLDER/BILL	ZD18931	5	AC	B
	34	62214904	SPRING/BILL HOLDER	ZD18932	5	AB	B
	35	19026987	SCREW/TAPPING	M3X8	5	AA	X
	36	19027093	SCREW/TAPPING	M3X6	6	AA	X
	37	19077922	PLATE/BOTTOM	ZD18031	1	CB	X
	38	19060689	RUBBER/DAMPER	ZD02032	2	AE	X
	39	19027046	FOOT/RUBBER	K3215	4	AJ	X
	40	19070234	SCREW/TAPPING	M4X16	4	AA	X
	41	19060691	SCREW/TAPPING	M3X5	5	AA	X
	42	19077920	CUSHION	ZD05422	1	AE	X
	43	19026214	KEY	ZD00226-1	1	AU	C
	49	19079615	EARTH/SPRING	ZD02162C	1	AE	C

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